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THE CANADA
EDUCATIONAL MONTHLY
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APRIL, 1882.

WORDSWORTH.*

BY THE REV. S. LYLE, HAMILTON.

WORDSWORTH'S fame is a plant of slow growth. But if his poems have been coldly and even cruelly received by some, they have been by others as enthusiastically admired, and as indiscriminately praised. Many of the thoughtful and cultured cherish a profound respect for the man and greatly admire his genius. In the honourable roll of poetic names, Matthew Arnold, no mean critic, places Wordsworth third. Shakespeare heads the list, Milton stands second, and the third place is held by Wordsworth. Francis Jeffrey, the brilliant reviewer, says, when speaking of Wordsworth's "Excursion," "this will never do." He admits some merit in the lyrical ballads—an "extreme simplicity and lowliness of tone," wavering prettily "between stillness and pathos." But the "Excursion" is a poor imitation of Cowper and of

Milton, engrafted on the natural drawl of the Lakers, and diluted by a profuse and irrepressible wordiness. To those who have studied Wordsworth carefully, and have with pleasure listened to him singing

Of truth, of grandeur, beauty, love and hope
And melancholy fear subdued by faith,
Of blessed consolation in distress,
Of moral strength and intellectual power,
Of joy in widest commonality spread,

Jeffrey's estimate appears cruelly unjust. With all Wordsworth's faults, and they are not a few, he is one of the world's great poets. Let us try to estimate the grounds on which such claims rest.

1. He is a lover of nature. And here, as in much else, "the child is father of the man." His intense sympathy with nature manifested itself in his boyish rambles over Hawkshead moor and mountain.

Even then I felt
Gleams like the flashing of a shield; the earth

* A Paper read before the Hamilton Literary and Scientific Association, March 9th, 1882.

And common face of nature spake to me,
Rememberable things.

His desire to see nature in her every mood and phase, led him out into the fields at night that he might watch the stars, and listen to the awful voice of the coming storm as it strikes on the distant rock. Yearning to have a sight of the sublime and the beautiful, he climbed the mountains that he might "behold the sun rise up and bathe the world in light." As he looked down on the solid frame of earth and ocean's liquid mass; as he touched the clouds, and in their faces read unutterable love, he felt inspired, and needed not the help of man to enable him to understand the scene. In his own words:

Sensation, soul, and form,
All melted into him; they swallowed up
His animal being; in them did he live,
And by them did he live; they were his life.
In such access of mind in such high hour
Of visitation from the living God,
Thought was not; in enjoyment it expired,
No thanks he breathed, he proffer'd no request,
Rapt into still communion that transcends
The imperfect offices of prayer and praise,
His mind was a thanksgiving to the Power
That made him; it was blessedness and love!

Born at Cocker-mouth, in Cumberland, Wordsworth's early years were spent amid scenes lovely, wild, and inspiring. Many a time this tender and thoughtful boy wandered along the picturesque rivers of the Derwent and the Cocker, and watched them meeting and mingling their waters near the spot where the ruins of an ancient castle look down on the quaint old town. Deeply did the scene impress him. Speaking of the Derwent he says:

One, the fairest of all rivers, loved
To blend his murmurs with my nurse's song,
And from his ford and shallows sent a voice
That flow'd along my dreams.

At the age of eight he was sent to school at Hawkshead, and thus brought into contact with the other ex-

tremity of the Lake scenery. Whether he is setting springs for woodcock, hanging on the naked crags of the rock in his efforts to reach the raven's nest, following the path of the solitary eagle so rarely seen, plunging into the woods in quest of nuts, or hissing "along the polished ice in games confederate," he is ever drinking deeper and deeper draughts of nature's fountain. In later days Wordsworth recognizes the healthful influences of nature in developing what was truest and best in his life, and restraining him from evil.

Yet were I grossly destitute of all
Those human sentiments that make this earth
So dear, if I should fail, with grateful voice,
To speak of you, ye mountains and ye lakes,
And sounding cataracts, ye mists and winds,
That dwell among the hills where I was born.
If in my youth I have been pure in heart,
If, mingling with the world, I am content
With my own modest pleasures, and have
lived

With God and nature communing, removed
From little enmities and low desires,
The gift is yours; if in these times of fear,
This melancholy waste of hopes o'erthrown;
If, 'mid indifference and apathy,
And wicked exultation when good men
On every side fall off, we know not how,
To selfishness, disguised in gentle names
Of peace and quiet and domestic love,
Yet mingled not unwillingly with sneers
On visionary minds; if in this time
Of dereliction and dismay, I yet
Despair not of our nature, but retain
A more than Roman confidence, a faith
That fails not, in all sorrow my support,
The blessing of my life; the gift is yours,
Ye winds and sounding cataracts; 'tis yours,
Ye mountains! Thine, O nature! Thou
hast fed

My lofty speculations; and in thee
For this uneasy heart of ours, I find
A never-failing principle of joy
And purest passion.

Even in his student life at Cambridge, love of nature is the ruling passion. In going up to this ancient and illustrious seat of learning, he felt his heart rising as he neared the enchanted ground.

As near and nearer to the spot we drew,
It seemed to suck us in with an eddy's force.

But even in this, the Alma Mater of Spenser, Ben Jonson, Marlowe, Dryden, Cowley, Waller, Milton, Herbert and Gray, Wordsworth could not free himself from the spell of nature. With pleasure he listened to the college clock tolling the hours "twice over, with a male and female voice;" with pleasure he, by the aid of the struggling moonbeams or favouring stars,

Beheld

The antechapel, where the statue stood
Of Newton with his prism and silent face,
The marble index of a mind for ever
Voyaging through strange seas of thought,
alone.

But with infinitely greater pleasure he stood under the "brown o'er-arching groves, that contemplation loves." From his own words we can picture the poet stealing out from the dim cloisters of the school or to the shade of the ash tree, wreathed with ivy, decorated with autumn tassels, and wet with the dew, if not with the spray of the river, and calmly and thoughtfully contemplating the scene. "Scarcely Spenser's self," he says,

Could have more tranquil visions in his youth,
Or could more bright appearances create
Of human forms with superhuman powers,
Than I beheld loitering on clear calm nights
Alone beneath this fairy work of earth.

True, the Cambridge scenery is dull and flat. But in spite of nature's plainness he could see food for thought in the green and pleasant grass, in the golden glories of day, and in the stately procession of night.

As if awakened, summoned, roused, con-
strained,
I looked for universal things; pursued
The common countenance of earth and sky—
Earth, nowhere unembellished by some trace
Of that first paradise whence man was driven;
And sky, whose beauty and bounty are ex-
pressed
By the proud name she bears—the name of
heaven.

When aimlessly wandering through
the streets of London, nature's scenes

were ever present to mould and in-
spire. What he said of the Farmer
of Tilsbury vale may be applied to
himself:

In the throng of the town like a stranger is
he,
Like one whose own country's far over the
sea;
And nature, while through the great city he
hies,
Full ten times a day takes his heart by sur-
prise.

In his sonnet on Westminster
Bridge he looks upon London as a
part of nature—as a child asleep in
its mother's arms:

The city now doth like a garment wear
The beauty of morning; silent, bare,
Ships, towers, domes, theatres, and temples
lie
Open unto the fields and to the sky;
All bright and glittering in the smokeless
air.
Never did sun more beautifully steep
In his first splendour, valley, rock, or hill,
Ne'er saw I, never felt, a calm so deep!
The river glideth at his own sweet will.
Dear God! the very houses seem asleep;
And all that mighty heart is lying still.

Here you see the poet clothing the
smoke-begrimed city with the bright
garments of morning, and placing
tower and turret and church and
theatre beside the open fields and
under the calm sky.

He sees the city, not as it is, full of
noise, and dust, and confusion, but
as his love of nature led him to con-
ceive it, as something silent, grand
and everlasting. Pope looked at
the country through the smoke and
fog of the city, and saw little to ad-
mire beyond the town limits. Words-
worth beheld the city in the clear
light of nature, and saw sights at
once beautiful and sublime—sights
that the dullest soul could not pass
without stopping to admire them be-
cause they were so touching in their
majesty. In Pope, everything centres
around man and ministers to his
glory: in Wordsworth, nature is the
centre, and from her emanate floods

of light and glory. The reaction commenced by Thomson against the artificialness of Pope and his school was carried on by Gray and Goldsmith, Collins, Cowper and Crabbe. Thomson took men out of the smoke and pestilence of the city, and placed them in the woods and bracing air of the mountains. Gray went with them to the country graveyard, and mingled his tears with theirs. Goldsmith, in language true to nature, sketched the village and its simple country life. Cowper gathered up the language and aspirations of the heart after the true and the good, and, in words that appealed to the rustic men and women of his day, sang of Christ and the great salvation; and Crabbe, centring all the interests of his poetry around the morals, the manners, the history of the agricultural poor, drew men's attention to the great drama of country life. And what these did for England and English-speaking people, Burns, single-handed, and in the face of obstacles not a few, did for Scotland, and did it well. This reaction culminated in Wordsworth. Alone in London, he is at home in the wild moor or on the bleak mountain. As a boy, with gentle reverent hand he touched the nuts that grew on the hazel trees, and felt there was a spirit in the woods. But here let me quote his own words, spoken of his companion, as the best description of his own conduct and feelings:

There was a boy, ye know him well, ye cliffs,
 And islands of Winander! many a time
 At evening, when the earliest stars began
 To move along the edges of the hills,
 Rising and setting, would he stand alone
 Beneath the trees or by the glimmering lake,
 And there with fingers interwoven, both
 hands
 Pressed closely palm to palm, and to his
 mouth
 Uplifted; he, as through an instrument,
 Blew mimic hootings to the silent owls,
 That they might answer him, and they would
 shout
 Across the watery vale, and shout again

Responsive to his call, with quivering peals
 And long halloos and screams, and echoes
 loud,
 Redoubled and redoubled; discourse wild
 Of mirth and jocund din, and when it chanced
 That pause of deepest silence mocked his
 skill,
 Then sometimes in that silence, while he
 hung,
 Listening, a gentle shock of mild surprise
 Has carried far into his heart the voice
 Of mountain torrents; or the visible scene
 Would enter unawares into his mind,
 With all its solemn imagery, its rocks,
 Its woods, and that uncertain heaven received
 Into the bosom of the steady lake.

His journey on the continent of Europe brought him into contact with new and instructive phases of nature. Crossing over the Alps and sweeping down towards Italy, through the gorge of Gondo, the grandeur of the scene ravished him with delight, and spoke to him things unutterable.

The immeasurable height
 Of woods decaying, never to be decayed,
 The stationary blasts of waterfalls,
 And in the narrow rent at every turn
 Winds thwarting winds, bewildered and
 forlorn,
 The torrents shooting from the clear blue sky,
 The rocks that muttered close upon our ears,
 Black drizzling crags that spake by the way-
 side
 As if a voice were in them; the sick sight
 And giddy prospect of the raving stream,
 The unfettered clouds and region of the
 heavens,
 Tumult and peace, the darkness and the
 light,
 Were all like workings of one mind, the
 features
 Of the same face, blossoms upon one tree;
 Characters of the great Apocalypse,
 The types and symbols of eternity,
 Of first and last and midst and without end.

Every gale fresh from the mountains assisted him in his upward flight: "every sound or sight in its degree of power administered to grandeur or to tenderness;" and thus his education was perfected and new delights spread round "his steps like sunshine o'er green fields."

2. Wordsworth's love of man is both deep and pure. Indeed, his constant communion with nature

melted his heart and made him truly and tenderly human. Looked at in this light, his sympathies are broader and more intense than those of Byron, Scott, or Shelley. In this, as in much else, he must be placed with Burns, to whom he owed so much. Burns taught him that

The poor inhabitant below
Was quick to learn and wise to know,
And keenly felt the friendly glow
And softer flame.

Hence among English poets Wordsworth "stands foremost and alone as the poet of common life." Defective in humour, he failed to see and express the comic side of English manners. Here Burns is stronger than his pupil. Refining and ennobling the humorous, Burns gave expression to the wit and merriment of the common people in songs that can never die. If Burns speaks for Scotland's sons and daughters, if Wordsworth paints the life of the thoughtful peddler, and of the dreamy recluse, Lord Byron is the poet of fashionable city life. He moves easily among the circles of pleasure and the depths of passion. He shamefully degrades talent, position and art, to the service of sensuality, and casts around vice the halo of his rare genius. In Scott you have a higher moral tone. In Sir Walter, strong, active, bold, romantic, we have the exponent of the old country aristocrat. The passionate loyalty of the dashing cavalier of the seventeenth century expresses itself in the heroic scenes so graphically depicted by the Scottish advocate of the nineteenth. But if Scott loved to linger on the glories of the setting sun, Shelley as eagerly peered into the dark night in the hope of seeing the morning star of a bright and better day. Shelley, as Brimley has well put it, is "the poetical representative of those whose hopes and aspirations and affections rush forward to em-

brace the great hereafter, and dwell in rapturous anticipation on the coming of the golden year, the reign of universal freedom and the establishment of universal brotherhood." This gentle, fervid and ill-fated spirit—shrinking from the least touch of wrong, and fired with all the enthusiasm of the patriot and the martyr—learnt in suffering what he taught the world in song. Like Carlyle, he hates oppression and scorns the oppressor—pours floods of contempt on tyrants and their tools. With savage malignity he attacks knave and hypocrite, and holds them up to scorn. Gladly he welcomed the French Revolution—the deluge of blood—because he thought it would bring in the reign of right and peace on earth. His cruel experience roused his hatred and made him fight against the civil and religious institutions of Britain, and "lent more glowing colours to the rainbow of promise that beamed upon him from the distance, through the storm of bloodshed and revolution." But if Lord Byron dwells most on the glories of the brilliant assembly; if Walter Scott lingers longest around baronial halls; if Shelley dips into the future, and in words rich in colour as a painted window, and suggestive as the strains of music, speaks of the brotherhood of man and federation of the world; Wordsworth sings of the hopes and fears, trials and triumphs, of the love and hatred of our common country life. Burns in Scotland and Wordsworth in England have done more than any other two poets to break down the conventional barriers that keep man from man, that divide rich and poor, and place them against each other in hostile camps. And in representing the men and women of this work-a-day world, Wordsworth has neither vilified the rich nor justified the presence of dirt, disease, vice and

heartlessness, so often found in the haunts of the poor. Passing by the accidents of station, he shows us the truth and the beauty of every honest life — the world of poetic wealth in every human breast.

His mother, whom he lost before he was eight, was truly human, and tenderly trained her "stiff, moody, and violent-tempered" boy. According to Wordsworth, his mother believed that the God "who fills the mother's breast with innocent milk, doth also for our nobler part provide," and in this faith she brought up her son.

This was her creed, and therefore she was pure
From anxious fear of error or mishap,
And evil, overweeningly so called,
Was not puffed up by false unnatural hopes,
Nor selfish with unnecessary care.

Such was she—not from faculties more strong
Than others have, but from the time, perhaps,
And spot in which she lived, and through a
grace
Of modest meekness, simple-mindedness,
A heart that found benignity and hope,
Being itself benign.

But much as Wordsworth owed to his mother, he was more indebted to his sister Dorothy. Though two years younger than the poet, she became his guiding star to inspire and

direct and give tone and tenderness to his whole life. In his poem on the Sparrow's Nest he thus speaks of her:

The blessing of my later years
Was with me when a boy ;
She gave me eyes, she gave me ears,
And humble cares and delicate fears ;
A heart the fountain of sweet tears ;
And love and thought and joy.

This education, so lovingly and faithfully begun by mother and sister, was carried on and completed at school and college. Though his university course was not distinguished, he mastered the Italian language, and was brought into closer contact with the great drama of life. It was here that he began to study the workings of passion, to analyze character, and make himself acquainted with the springs of action. Indeed his college training gave him the catholic feeling so beautifully expressed in some of his poems, and enriched his vocabulary not a little. It enabled him to combine the homely pathos of Crabbe and the philosophic breadth of Coleridge—the profound speculations of the philosopher and the simple narrative of the historian of the poor.

(To be continued.)

EFFECT OF EDUCATION ON WOMEN.—The bread-winning necessity, so aggravated by many social causes, has done much in favour of education. It is not the highest, not the truest, argument for human culture ; but it has the merit of being answerable. The latest and lowest objection that has been brought forward is the fear that highly-educated women will cease to be attractive to men, and even themselves care no longer to please. We might leave nature to settle that question ! But men have been heard to say that they thought woman's first duty was to sooth man's ruffled vanity ; that at least, at home, he might be able to consider himself the first of men. Such people need not fear that the supply of flatterers in either sex will

ever fail ; but, since it cannot be denied that talent has ever been one of the greatest attractions to women, do men wish us to rate them so much lower as to think that cultivated minds, and all the varied charms that flow from a superior intellect, are valueless in their estimation ? A well-balanced judgment will teach women to make the best of their lot in life when unfortunately they are unequally yoked, and a wise woman will conceal and correct those faults a fool would flatter and encourage. To be a helpmate to man is, I believe, admitted on all sides to be woman's happiest position ; but conventional inferiority will not insure that companionship which can be relied on as a help in the various trials of married life.—*Ex.*

CRYSTALLOGRAPHIC NOTATION.*

BY GEO. ACHESON, B.A. SCIENCE MASTER, COLLEGIATE INSTITUTE, TORONTO.

IN crystallographic calculations an abbreviated notation for the forms becomes a necessary convenience. Forms, or crystal-planes, are named usually according to their position and relation to the axes; and a system of signs which indicates these positions and relations constitutes a kind of crystallographic shorthand, the convenience and utility of which is quite obvious.

At present various systems are in use, each having its own special advantages and disadvantages. The object of this paper is to bring before you a system different from any one of these, and, it is hoped, possessed of greater advantages and fewer disadvantages than any of those now in vogue.

I will first briefly describe the three principal systems now in use among modern crystallographers, viz., (I.) Naumann's; (II.) Dana's; and (III.) Chapman's.

I. *Naumann's System*.—The basis of this system is a plane cutting the three semi-axes (triaxial), and is denoted by the symbol P .

This is the triaxial pyramid form. The basal form is assumed to consist of this pyramidal form flattened down on the horizontal axes so as to be parallel to them, and cutting the vertical axis at the length *zero*. Its symbol, therefore, becomes $0P$ (*zero-P*).

A prism-form is supposed to be this pyramidal form opened out so as to be parallel to the vertical axis, *i.e.*, to

cut it at *infinity*; and so its symbol is ∞P (*infinity-P*).

If the prism is parallel to one of the horizontal axes, it is denoted by $\infty P \infty$; and a diaxial pyramid has the symbol $P \infty$. The sign ∞ before the P always refers to the vertical axis; after the P , to one of the horizontal axes.

In Naumann's system, then, the base is denoted by $0P$; the triaxial pyramid by P ; the diaxial pyramid by $P \infty$; the diaxial prism by ∞P ; and the monaxial prism by $\infty P \infty$.

In the diaxial pyramid and monaxial prism, a sign denoting to which of the horizontal axes the form is parallel, is affixed to the symbol ∞ . Numerical coefficients are also attached to these symbols, denoting the lengths at which the axes are cut, the number prefixed to the symbol always referring to the vertical axis; that following it, to one of the horizontal axes.

In the regular octahedron, instead of denoting the planes by P , Naumann made their symbol O , the initial of octahedron. All other forms, however, were denoted by the above signs.

II. *Dana's Latest System*.—This system differs from Naumann's in leaving out the sign P , and denoting infinity by its initial letter, I or i , instead of the sign ∞ .

In this system, then, the base is denoted by 0 (*zero*); triaxial pyramid by m ; diaxial pyramid by $m-i$; diaxial prism by I or i ; and the monaxial prism by $i-i$. As before, numerical coefficients refer to the

* A Paper read before the University College Natural Science Association, November 30, 1881.

lengths at which the axes are cut—one of the horizontal axes being taken as unity.

§III. *Chapman's System*.—One objection to the two systems already described is that the symbols employed cannot readily be translated into words which shall precisely define the crystal-form which they represent. To remedy this, Professor Chapman has proposed a system based on the division of all forms into *basal*, *polar*, and *vertical*; and these are denoted by the initials of their names, *B*, *P*, and *V*. To these symbols are added, where necessary, the sign of the axis to which the form is parallel. The base is denoted by *B*; the triaxial pyramid by *P*; the diaxial pyramid by \bar{P} or \bar{P} (*front* or *side-P*); the diaxial prism by *V*; and the monaxial prism by \bar{V} or \bar{V} (*front* or *side-V*). As in the other systems, numerical coefficients are used with these signs to denote the lengths at which the axes are cut.

Having thus briefly described the three systems now in common use, I will proceed to describe the one I propose.

First, I would say that the desiderata of a good system of crystallographic notation are brevity and simplicity. If there is any necessity for a notation at all, the briefer it can be made the better, provided that clearness and simplicity are not sacrificed. The fewer the principles on which a notation is based, the simpler it will be. The one principle on which I propose to base my system is merely to write the sign of the axis or axes to which the form is parallel; with a number, where necessary, denoting the length at which the other axes, or axis, is cut.

The axes may be denoted as follows:—Vertical axis by *a*; right and left axis by *b*; and back-and-front axis by *c*.

Now, we may obtain expressions for all forms by writing one or more of these signs, according to the axes to which the form is parallel, accompanied by the proper numerical coefficients, which are of course calculated from angular measurements.

In this way the notation for any form shows the number and designation of the axes to which it is parallel by the number and designation of the signs of which it is composed. All possible forms are either triaxial, diaxial, or monaxial. Triaxial forms will have no symbol except the numerical coefficient; diaxial forms will have one, and monaxial forms two, besides their numerical coefficients. This method may of course be employed for the notation of all the forms in all the crystal-systems; but with regard to certain closed forms, especially those belonging to the Monometric System, and the Rhombohedron and Scalenohedron of the Hexagonal System—which have long been known by special names—it will be more convenient often to denote these by the initial letter of that name, adding, in the case of variable forms, the coefficient of axial ratio.

On this principle, then, the symbol for a basal form will be *bc*; for a triaxial pyramid *m*; for a diaxial pyramid *b* or *c*, according to the axis to which it is parallel; for a diaxial prism *a*; and for a monaxial prism *ab* or *ac*, according as it is parallel to axis *b* or *c*.

Taking up the crystal-systems separately, the notation for the holohedral forms in each will be as follows:—

Monometric System.—Here, as the axes are all equal, they will all be denoted by the symbol *a*. The notation, therefore, will be for—(1) Cube (Hexahedron), *aa*, or *H*; (2) Rhombic Dodecahedron, *a*, or *D*; (3) Fluoroid, *an*, or *F*; (4) Regular Octahedron, *x*, or *O*; (5) Trapezohedron, *nm*, or *T*;

(6) Trisoctahedron, or Galenoid, *n*, or *G*; (7) Adamantoid, *mn*, or *A*.

Dimetric System.—Here the vertical axis is denoted by *a*; and the horizontal axes, being equal, have both the symbol *b*. The notation, therefore, becomes for—(1) Basal, *bb*; (2) Front, or monaxial prism, or pinnacoid, *ab*; (3) Diaxial prism, *a*; (4) Octagonal prism, *an*; (5) Front, or diaxial pyramid, or dome, *mb*; (6) Triaxial pyramid, *m*; (7) Octagonal pyramid, *mn*.

Hexagonal System.—In this system, as the axes are of two lengths, the symbol for the vertical is *a*, and for each of the three horizontal, *b*. And the notation is for—(1) Basal, *bbb*; (2) Front, or diaxial prism, *ab*; (3) Triaxial prism, *a*; (4) Di-hexagonal prism, *an*; (5) Front, or triaxial pyramid, *mb*; (6) Tetraaxial pyramid, *m*; (7) Di-hexagonal pyramid, *mn*.

Trimetric System.—Here the vertical axis is denoted by *a*, the macro-axis by *b*, and the brachy-axis by *c*. And the notation becomes—(1) Basal,

bc; (2) Front, or macro-prism, or pinnacoid, *ab*; (3) Side, or brachy-prism, or pinnacoid, *ac*; (4) Rhombic, or diaxial prism, *a*; (5) Macro-pyramid, or dome, *mb*; (6) Brachy-pyramid, or dome, *mc*; (7) Rhombic, or triaxial pyramid, *m*.

Monoclinic System.—Here the vertical axis is denoted by *a*, the ortho-axis by *b*, and the clino-axis by *c*. And the notation is—(1) Basal, *bc*; (2) Front, or ortho-prism, or pinnacoid, *ab*; (3) Side, or clino-prism, or pinnacoid, *ac*; (4) Diaxial prism, *a*; (5) Ortho-pyramids, or domes, *mb* (upper), and (*mb*) (lower); (6) Clino-pyramid, or dome, *mc*; (7) Triaxial pyramids, *m* (upper), and (*m*) (lower).

Tridinic System.—The notation becomes—(1) Basal, *bc*; (2) Front prism, *ab*; (3) Side prism, *ac*; (4) Diaxial prism, *a*; (5) Upper front pyramid, *mb*; (6) Lower front pyramid (*mb*); (7) Upper side pyramid, *mc*; (8) Lower side pyramid (*mc*); (9) Upper Triaxial pyramid, *m*; (10) Lower Triaxial pyramid (*m*).

CLOCK-QUESTIONS.*

BY AGNES E. WETHERALD, FENWICK, ONT.

THERE are several ways of solving the sort of arithmetical problems usually called clock-questions. You may ask help of some mathematical companion, who will, ten to one, look at you with pitying eyes, as though she would say, "Now, see here, my poor ignorant friend, this is the way you set about it;" or you may experiment on the parlour clock; or you may boldly avow your ignorance in the recitation room, thereby rendering yourself liable to receiving a slip of

paper on which has been drawn, with more speed than skill, the picture of a melancholy damsel with cheek resting despondingly on hand, saddened visage turned toward the blackboard, and underneath the scathing words, "Can't see through the 13th!" Another way of solving clock-questions is to work at them until you get them. This is perhaps as good a way as any.

But the clock-questions of which I wish to speak are not found in arithmetics; they meet us every day of our lives; they are of vital importance; they demand instant solu-

* Read before the Literary Society of Pickering College, March 24.

tion. It is a strange fact that a mere machine has risen to the first place in the thoughts of civilized mankind. Let us confess with shame that we habitually look with more interest on the face of a clock than we do on the face of a dearly-liked friend ; that we consult it oftener than we do the one whom we most delight to honour ; that we watch its progress with a more careful eye than we do the progress of our nearest and best. What is it that drives one to sleep at night ? Is it the fact that one is sleepy ? Not always. Rather, it is the apparition of a clock, with its two hands folded together at the most northerly part—to speak geographically. Is the first thought in the morning a blessed realization of the truth that every lesson for that day is learned ? Not exactly. One's first mental operation is more likely to take the form of a clock-question, worded in this way : If the sunshine has reached the same point on the wall at the present moment that it did at seven o'clock yesterday morning, must it not be seven o'clock this morning ? This is not a difficult problem, and yet it seldom brings satisfactory results.

Now, in return for all the homage—almost approaching servility—which we render to the clock, let us carefully consider what the clock has done for us. First, it reminds us of the flight of time. That is a vile thing to be reminded of. Everyone knows that time flies ; and some of us, who are behind time, are apt to think that we will never catch up until we are angels, and learn to fly too. It has, besides, a murderous tick, which, as little "Paul Dombey" said, seems to attack each second as soon as it comes, and strike it dead on the spot. Then it is despotic, omnipresent, heartless.

No doubt you remember the evening when you went for a moonlight sail on the lake. The still waters ; the

shadowy, vague shore ; the dreamy, enchanting motion of the boat ; the wan, unearthly moonlight, gave you a pleasure, acute and penetrating like pain. You began faintly to realize that you had left earth and its dull cares behind you, when your prosaic companion, taking out his watch, with a long yawn, reminded you that it was the unlovely hour of half-past ten, and he guessed it was about time you were at home. Flee to the mountains, but do not imagine that the clock-tyrant will relax even there his pitiless hold upon you. You will have to attend to this or that trivial duty. The eternal hills may wait awhile—they are accustomed to waiting—but time waits for no man. We are slaves of the clock. When we are working, it is with a half-feverish anxiety caused by constant reference to that soulless machine ; when we are resting, we are resting like fury. Thrice happy he who can say with Lowell—

" Oh, my life, have we not had seasons
That only said live and rejoice !
That asked not for causes or reasons,
But made us all feeling and voice :
When we went with the winds in their
blowing,
When Nature and we were peers,
And we seemed to share in the flowing
Of the inexhaustible years."

Men are known by the kind of time-keepers they carry. I have always had a warm liking (and not much respect) for Captain Cuttle, who had a watch of which he said, that if he could only remember to set it ahead half an hour in the forenoon, and back quarter of an hour in the afternoon, it would keep time with anybody's watch ; and I have always had a great respect (and not much liking) for Washington, who was so rigidly punctual, that when Hamilton, his secretary, pleaded a slow watch as an excuse for being five minutes tardy, he replied, "Then, sir, either you must get a new watch, or I must get a

new secretary." The trouble with this question—the trouble with every question—seems to be, that there are so many convincing arguments on both sides. No time is lost in which one has been happy. That has a pleasant and worldly sound. But no one can be happy who is not doing right, and no one can do right without being a miser of the minutes, and no one can be a miser of minutes who does not get through with a certain amount of hard work. So, then, we drift by natural means to the other extreme of, overwork. This is an evil of which I am sure many of us stand in wholesome horror. Indeed, I have little hesitation in saying that the really over-worked and broken-down members of the Intermediate Grammar Class might easily be counted on the fingers of both hands.

The question of the day—that is, the clock-question of the day—is this: Given a certain limited amount of time to find how much work can be performed in it. Generally, one can study better when time is pressing. Monday's lessons are never learned, simply because there is plenty of time to learn them in. Some of us, self-sacrificingly, stay away from the meetings of the Literary Society so as to

have more time in which—not to learn them in. As a rule, we like study, but we don't pine for it. Unfortunately, "Mason's Grammar" has not the charm of a thrilling romance, over whose pages you hang with breathless interest; that fascinating glamour which rests upon the latest book of summer travel is sadly absent from our geographies. There is nothing in clock-questions or in stock-questions to stir the blood, and geometry is powerless to wake within us thoughts which do often lie too deep for tears—unless it be on examination-day. But let me repeat the hackneyed truths again. If you wish to triumph over, and, in a manner, to taunt your ancient enemy the clock, you must do as you would to get in through a crowd to a gate: all are equally anxious to reach. Hold your ground, and push hard. To stand still is to give up hope. There is nothing that may not be achieved, by an intense, continuous act of volition. The greatest genius is a genius for persistence. One must not only strike when the iron is hot, but strike till the iron is hot. "Men must know," said Bacon, "that in this theatre of man's life it remaineth only to God and the angels to be lookers-on."

PRACTICAL EDUCATION.—Is the teacher's work done when he has supervised the pupil's work in memorizing facts? Do facts memorized, and not understood, constitute an education? Are they not like characters written on the rough surface of a frosted window? Are they not cumbersome and unwieldy mental trumpery? What the pupil learns is useful only as he can apply it. But how can he apply what he does not understand? He was told that grammar is the science of language, but why was he not taught the extent and utility of this science, and the practice of its correlative art, so that he could compose and place in proper form a social, or a business letter or write out properly the most common business form? How many of our pupils whom we termed good arithmeticians, could make rapidly and correctly the most common calculations necessary in our banks,

business offices, and stores, or tell the amount and cost of materials used by mechanics in the construction of an edifice? How many are there, that can talk fluently on the topics of the day, and yet are unable to express their views in writing upon a subject with which they are perfectly familiar? I may be a radical upon this question, but I firmly believe that a proper public-school training can change all this, and that every pupil, to the extent of his mental endowments, can be taught to express his knowledge of subjects in *writing* as freely as he can *orally*; that he can be taught to apply his knowledge of arithmetic, geography, grammar, and history to the various practical duties of life, and until this is done our system of education will, in my judgment, be to a great extent a failure; it will be wanting in the chief ends of its creation.—*Supl. G. F. Lucky, Pittsburg, Pa.*

A TEACHER'S HOME READING.*

BY FRANK CRASSWELLER, ZURICH.

ALTHOUGH not perhaps directly bearing on our school work, our home reading merits a share of attention—a share which, in this Institute, it has not yet received. The effect it has indirectly on our success in school or in the community, and the influence it has on our minds and on our future career in life, are undoubtedly great—so great as to make it advisable for us to look into the matter, and find out what reading is most conducive to our well-being. The benefits derived may be summed up in increased knowledge; in increased power, both in school and in the section; in increased ability to compose—a better judgment and a more liberal mind. Increased knowledge, because we shall gather from the experience of other and greater men. Increased power in the school, because, from our increased knowledge, we shall be able to make our lessons more interesting to the children; and in the section, for our general information will enable us to talk with sense upon any subject likely to be discussed in our presence; and this will ensure us a higher and more influential position among the people. Increased ability to compose; for nothing is so helpful to those who wish to write correctly as an acquaintance with good literature. Better judgment; for not only must we gain by the experience of others, but by the extent and variety of our reading. The varying views of different authors of other ages and climes will

show us all sides of questions, and thus afford a better chance of forming correct opinions, and a more liberal mind, from our increased knowledge of human nature. We shall find that all classes and creeds, whether in religion, in politics, in science or in philosophy, have been in turns oppressors and oppressed—at one time weak, at another strong; at one time scorned, at another worshipped. In religion, we shall see a Church whose members, eighteen hundred years ago, were insulted and despised, extend itself to every quarter of the globe, and yet which numbered among its adherents the wealthiest and the most highly civilized of the people, while the religion which contemned it sinks into insignificance. We shall see this Church, after fifteen hundred years of unity, suddenly split into two parts, each as antagonistic to the other as if there were no bond of union between them—as if they had never been parts of one whole. From one of these parts we shall find numerous sects separate themselves, and leave the country, to escape persecution, carrying, however, into new lands the same bitter feelings, the same spirit of persecution that had driven them from their homes, and treating others no better than they themselves had been treated. In politics, we shall find thousands dying for the doctrine of "Divine Right"—a doctrine which, in English-speaking countries, could now hardly find a defender. In science, Galileo was persecuted for asserting a belief in what is now held as truth by every-

* Read before the West Huron Teachers' Association, at Exeter, Feb. 17, 1882.

one ; while Stephenson was jeered for bringing forward a scheme which in fifty years has produced changes in the commerce, the manners and customs of the people, so vast, so portentous, as to be almost incredible. In philosophy, changes as great have also taken place. Recalling these matters, and noting how many thousands of earnest, honest men have suffered and died, have persecuted and been persecuted, in support of ideas which subsequently proved to be false, how essential is it that we should carefully study every question from various points of view, form an opinion about it, and, if necessary, maintain it—not dogmatically, but with reason; not arrogantly, but with dignity, admitting the difficulty of forming a correct judgment, and giving to our opponents the same credit for honesty in the search for truth that we claim for ourselves. From our reading, then, we should find that it is no sign of wisdom to form an opinion hastily, or of determination to hold to it firmly when it has been proved erroneous, nor of earnestness and singleness of mind when we turn to accuse those who differ from us of foolishness or dishonesty. But there is a further benefit in the pleasure we derive from books. Life was not meant to be passed solely in eating, sleeping, and working. To the man who considers it should be so, life becomes a servitude, his work a drudgery, and at last he breaks down under it. We are better able to go on with our work when a little pleasure is mixed up with it; and what pleasure can equal that derived from books? What friends have we better than books? They never leave us; they never change; nor do they fail to satisfy our cravings after knowledge. Do we want to learn about our bodies and their functions, or of the stars and the earth? in science we can satisfy ourselves. Do we wish to

study the lives of nations, the theories of government, the habits and manners of people of all ages and countries? history will unfold her panorama and teach us. Do we wish to turn our imagination to lofty thoughts and noble deeds? we have our poets. Not only are they our friends to help us, whatever the line of our duties, but they are our friends whatever may be our humour. Are we gay or light-hearted? we may laugh at Mrs. Malaprop, enjoy the fun of Mark Twain, or amuse ourselves with "Falstaff." Are we sad?—

"We may read from the humbler poets,
Whose songs gushed from their hearts"—

read until

"The cares that infest the day,
Fold their tents like the Arabs,
And as silently steal away."

Are we weak, faint-hearted, weary of well-doing, troubled about a thousand and one vexations and trials? we may take our histories and biographies, and read how good men and true, firm of purpose and strong of heart, struggled with temptations greater, trials more numerous and disappointments more vexatious; and died triumphant, leaving their names blazoned on the book of Fame—read till our minds are inspired and our wills strengthened, till our troubles have disappeared, and we have resolved that though ours be not the good fortune to make a name in history, we will do our duty as earnestly and faithfully as those whom fame has declared most worthy of a world's honour. And what shall we read? Read all the best books we can obtain. I believe with Lord Brougham that "everyone should know a little of everything, and everything of something;" and in the present day, with good literature so cheap and abundant, it is possible for all of us to acquire, through home reading, a large fund of general knowledge.

Mr. Goschen, speaking at an Educational meeting in England a short time ago, said that knowledge was of two kinds. There was knowledge which, when obtained, was directly available for material and practical purposes, such as a knowledge of Arithmetic, Book-keeping, Mechanics, etc.; and knowledge which, though not directly available, was yet valuable, as it strengthened the mind and matured the judgment. The knowledge derived from reading is of the latter kind. First on the list of reading matter I would place Newspapers. These are almost—indeed, I think I may say, absolutely—necessary. A teacher who does not read the news of the day or week is clearly behind the times. We should, if possible, manage to read both a local and a city paper, and should take at least one educational periodical. If we can afford more, so much the better. From the local paper we shall gather the general news of the neighbourhood, and shall thus have matter to talk about when we come in contact with the people of the section. From the city paper we shall gather the news of the world; and it would be better for us if we could manage to read two, one on each side of politics, as a person is apt to think there is but one side to a question when he sees the arguments of one side only. Through the Educational journal we shall be able to learn of any improvements that may be made in methods of teaching, and shall also become acquainted with the news of the profession. By increasing our knowledge of the profession, its members and their doings, we shall become filled with the professional spirit, and shall, in consequence, find ourselves more energetic, more patient, and better fitted for our duties. Apart, also, from the indirect benefits in increased knowledge and culture, we should derive many direct

benefits, both in the school and the section, from newspaper reading. In the school we should be able to explain things better to the children; and how interested they become when we try to impress a point on their minds by some short anecdote which we have read, may be seen by the wide open eyes and eager faces with which they listen to it, and the length of time they will remember both anecdote and point. In the section, our ability to speak sensibly, and with the ease which results from a thorough knowledge of what we are talking about, will insure us increased respect from the people. Nothing lowers a teacher so much in public estimation as a lack of general knowledge; and an ill-informed teacher is forced to display his ignorance whenever he enters into conversation with any of the people of his district.

Next to newspapers I would place works on Science and Philosophy—works relating to the laws of our being and to the rules which should guide us in our relations with other people. These books are

“Our reason’s guide, by whose assisting light
We trace the moral bounds of wrong and right.”

They explain the workings of Nature, and show forth her beauty and grandeur, and help us to know ourselves better—to understand our place in the world, the work we have to do, the power we have to do it with, and the laws by which we should be guided. The cheap works published by the Humboldt Library enable us to obtain books of this kind which otherwise might be beyond our reach. The popular form in which they are brought out, and the interesting and instructive facts and ideas found in them, should make them welcome reading to all but those who think that it is not essential to study anything

save what is necessary to enable them to pass a coming examination.

Third on the list I would place Histories and Travels, for it is chiefly through them that we are enabled to profit by the mistakes and inexperience of other people. Through History we are able to study the cause of the growth and decay of nations, the value of different forms of government in different circumstances and times; and of the general changes which have advanced the greater part of the world from a barbarous to a highly civilized state. This knowledge will enable us better to discharge our duties as citizens, to understand affairs of state, and to give a more intelligent vote if we have one. From Travels we should learn the manners and customs of people in other parts of the world, their peculiarities and the cause of these, their political institutions, their works of art, and, in fact, everything pertaining to them.

Fourth will come Poetry, chiefly valuable for its refining influences, for its turning our minds from merely practical work and material things, to higher, nobler, and more ideal thoughts and actions, and for its power as a cultivator of the imagination. Commence with the best poets, and when you have read all their works it will be time to take those which have attained but second-rate fame. Begin with Shakspeare, the "Immortal Bard of Avon;" and if a stranger to his writings, you will have before you a work which will give you matter for study for a long time, and matter, too, which will well, richly repay your study. If you are already acquainted with his works, you will find that every new reading discloses fresh beauties and new ideas, and makes you wonder more and more at the universality of his genius. From Shakspeare you can pass to Milton, and from Milton to others hardly less inspired, drink-

ing deeply of poetic truths and gaining an acquaintance with the choicest and most elegant English.

Next come Biographies, which are useful as enabling us to study the lives of great and good men, the ways in which they gained success, the nobility of their character, and their trials and struggles, in order that when we are weary we may gain strength from the record of their triumphs.

Last, but not altogether least, come works of Fiction. A paper was read last year before the Wentworth Teachers' Association, and was printed in the EDUCATIONAL MONTHLY, in which the writer strongly advised young teachers not to read novels. I hope, therefore, I may be pardoned if I spend a few moments in explaining why I give them a place in a teacher's reading. Novel-reading has become so general that a large number of books of absolutely worthless character have been written, and are, I am sorry to say, read by a great many. This fact has caused many people to denounce the reading of all works of fiction, not only as a waste of time, but as likely to injure one in mind and morals. This would depend altogether on the sort of novels read. The chief objection, however, which the writer of the article referred to advanced, was, that a work the size of an average novel would take too much of a teacher's time from study. Now, I hold quite a contrary opinion. A teacher who has a moderately-sized school comes home after a fair day's work and commences studying. Can he study all evening, go back the next day and do another good day's work, and continue doing so? I believe not; at least the majority cannot. The work at night being so much like that during the day, his mind becomes weary, and he either gives up studying and goes wandering aimlessly round the section; or he continues his studying, his

work becomes a drudgery, and the school suffers in consequence. Now, if he had been content with studying for an hour or two in the evening, and had spent part of his time reading one of these much-decried novels, how much better it would have been for him. His time would have passed more pleasantly, he would have done more studying, and would have received benefits from the novels he read. I am supposing, of course, that our teachers are of ordinary understanding, not likely to be led away by the tales of blood and thunder which schoolboys devour, or the sentimental, sensational rubbish which finds eager readers among the servant girls of our cities and towns. I am supposing that where the chance was offered them they would take the works of our standard novelists, the works of those who have won fame by the beauty of their language, the grandeur of their imaginations, the variety and faithfulness of their descriptions, and their wonderful knowledge of human character. And what are the benefits we should derive? (1) A clearer view of different classes and conditions of people, their modes of living, and their various trials and temptations; (2) a better knowledge of our own characters; (3) a better idea of what good composition is; and (4) a more sympathetic heart, arising from a richer and more extensive knowledge of human nature. I believe that more insight into our own character may be gained by reading novels than in almost any other way; that is, if they are read in a right manner. A person in reading a novel should observe carefully the characters of the different people in the book—should note attentively all shades of character that resemble his own—should trace out these shades, and examine in what points there is a resemblance—should follow them on and see what effect they have on

the person's life, and whether the effects stated are reasonable or probable—examine, in fact, whether they are traits of character which should be encouraged and strengthened, or checked and weakened. Used in this way, I see no reason why novel-reading should not become a great moral aid in building and strengthening our minds. If a friend or relative quietly informs us of some weak point in our character, we generally feel a little sore—feel like reminding him or her of the passage about the mote and the beam, and very likely go away with the idea, too, that our friend is wrong in his suppositions. But when we find this weak or bad point in a character in a book, and reading of or seeing the inevitable consequences that flow from it, it does not seem as if we had been told of it, but as though we had discovered it for ourselves; and, therefore, to make some use of our own discovery, we immediately set to work to conquer the habit, be it what it may. But in whatever line you read, whether it be in Science, Philosophy, History, Travels, Poetry, or Novels, or all together, read the best books and only the best books. Read them carefully, read them thoroughly, read them thoughtfully; for in them you will find facts that will interest, truths that will instruct, sentiments worthy of attention, and ideas deserving of thought. Say not that you have no time, or that you are too busy. Make time. How much of your time do you waste in idleness and folly? And even suppose you waste no time, an hour or two a night taken from study for this purpose would be well spent. Think you that scientists and philosophers, from Socrates, Plato, and Aristotle, to Mill, Spencer, Tyndall, Huxley, and Darwin, have studied and thought and written for nothing? Think you that historians, from Herodotus and Thucydides, to Gibbon, Hallam, and

Macaulay, have gleaned from the records of by-gone ages, the lives of nations, and the causes of their rise and fall, for no practical use? Think you that Shakspeare's wonderful imagination, keen insight into men's minds, and knowledge of every chord of feeling that can be touched in the human breast—that Milton's lofty ideas and grand conceptions—that Byron's fire, Moore's wit, Shelley's earnestness, and Tennyson's pathos, were given them to serve no useful purpose? Do you suppose that the grand powers which "George Eliot," in her delineations of such characters as "Tito Melema" and "Daniel Deronda," and in the noble, true and just ideas she has scattered through her books, has shown herself to possess; which Thackeray has wielded to good purpose in those masterly satires in which he held up the fopperies and frivolities of the fashionable world to the scorn of all sensible people; which Scott and Lytton have manifested in those works in which they have brought vividly before the people of a newer and higher civilization, the chivalry of the feudal age, and held up for the enlightenment and admiration of a newer generation the faith, generosity, truthfulness and magnanimity of an old, without the barbarity which accompanied them; which Dickens proved himself gifted with, when he dived below the surface, and in books which were read wherever the English tongue was heard, forced upon the notice of the higher and wealthier classes the trials and temptations of those who had never before had an advocate at once so able and so earnest to put forward their claims on humanity;—do you suppose, I say, that these grand powers were exerted merely for our amusement and pleasure? Who will say yes? And if not, for what purpose did these men write? Was it not that they might increase the sum total of human

knowledge, of human happiness, and of human power, add their mite to the advancement of learning, and by giving the world the benefit of their thoughts and experience, aid the grand march of civilization? And shall we alone—we who need to glean and gather from every corner material that may enable us to do our duty—we who need all the knowledge and power we can procure for our daily work—shall we alone refuse the benefits offered by their hands? Shall we listlessly idle away our time, or spend it cramming for examination after examination, until we have perhaps a "First A," or a "Degree," and yet are ignoramuses in the true sense of the word? If we would not have ourselves pointed at as examples of crass ignorance; if we wish to wield that influence and power which as instructors of the young we should have; if we would have knowledge and force sufficient to mould aright the characters of the children committed to our charge; if we would meet with that success in life for which we strive, and which we are ambitious to attain; if we would raise ourselves out from the rut in which we are too apt to run; if we would elevate our understandings, broaden our minds, and mature our judgments, we must read. Let us then, remembering Bacon's advice, "that we should read not to contradict and confute, nor to believe and take for granted, nor to find talk and discourse, but to weigh and consider," glean from the literary treasures, first of our own country, and secondly, if possible, of other countries, all that is of practical benefit—all that will tend to raise us above the common things of life, and fill us with stronger love for that which is noble and true, and stronger hatred for that which is low and mean; all that can aid us to do the work we are called to do honestly, fearlessly, and thoroughly, in the sight of God and

man, so that in the end we may have the proud satisfaction of looking back on a life honourably spent in work faithfully done.

P. S.—In order to avoid misconception, I may say that, assuming

that the Bible is read by all our teachers, and that it occupied necessarily the first and foremost place among their reading, I have not thought it necessary to say anything about it in this Essay.

COMMON ERRORS OF SPEECH AND THEIR CORRECTION.—II.

BY H. J. STRANG, B.A., PRINCIPAL HIGH SCHOOL, GODERICH.

(Continued from page 114.)

ERRORS OF STYLE.

UNDER the head of Style, in composition, the principal qualities to be considered are Purity (or Correctness), Clearness, Force, and Harmony (or Elegance). Of these the first two are not only the most important, but the only ones that direct instruction in school can do much towards securing. On this point it is noted by Hill, in his "Principles of Rhetoric"—to which, as also to Abbot's "How to Write Clearly," and Nichol's "Composition" (Primer Series), I take the opportunity of acknowledging my indebtedness:—"While engaged in the act of composition, a writer should think little about Force, and not at all about positive Elegance; but he should constantly aim to make himself intelligible, sure that if he does not succeed in doing this other merits will be of little avail, and that if he does succeed other merits will be likely to come unsought."

I. CORRECTNESS.—This has to do chiefly, if not solely, with the choice of words and phrases; and errors in this respect are usually classed as Solecisms, Barbarisms, or Improprieties. With the first of these I have already dealt at sufficient length under the head of "Grammatical Errors"—

a solecism being generally understood, I think, to mean a violation of some rule of grammar, or of the idiom of the language.

Barbarisms (or, as the name indicates, words not recognized as good current English) include *obsolete* or *antiquated*, *foreign*, and *newly-formed* words. Of these the first two do not seem to call for illustration, as they are rarely heard or met with; and the unnecessary use of foreign words and phrases, though common enough in many of the novels and magazine articles of the present day, is scarcely so general a fault as to come within the scope of this paper. As to the third class, a word or two of caution may not be amiss. I am far from being one of those rigid conservatives who regard our language as complete and sacred, and stubbornly resist every attempt to introduce a new word or phrase, or to use an old one in a new sense. As our knowledge grows, our language must go on to keep pace with it. New discoveries, inventions, wants, and thoughts will require and suggest new words or phrases to name or express them. While, however, I have not the slightest objection to the introduction of new words and phrases into our language, always provided (1) that they supply a real want; and (2) that they have been formed in

accordance with the genius of our language, and with a due regard to analogy and euphony, I hold that it is our duty as teachers to refuse to lend the weight of our approval and influence to these, unless they come to us with the sanction of some recognized authority. Especially is this necessary when *slang* is so common, and seemingly so infectious; and when even the unwieldy dimensions of "Webster's Unabridged" do not suffice to prevent "enterprising reporters" from trying to incorporate such mongrel monsters as "shootest," "skatorial," "burglarize," into our vocabulary. It was my original intention to dwell at some length on the subject of *slang*, but as another of our High School masters has already dealt with it in an interesting and instructive article in the January number of the EDUCATIONAL MONTHLY, I shall pass on to the last class of offences against Purity.

Improprieties, or the use of recognized words in wrong senses, are, I think, when not coming under the head of *slang*, generally due to one or other of the following causes:—

(1) Confounding words of similar sound; as, "It is impossible to *predicate* (predict) the result of such a contest." "His story did, certainly, seem rather *incredulous* (incredible)." "To *impute* (impugn) a man's veracity." "An *equitable* (equable) distribution of heat." "*Expatriating* (expiating) his crimes on the gallows." "*Depreciating* (deprecating) unfriendly criticism." "He found them in want of the commonest *necessities* (necessaries) of life." He announced that he would not offer any *fictitious* (factions) opposition to the Government." (2) Want of attention to the distinction between words of similar or related meaning, as: "He seemed disposed to question the *veracity* (truth) of my statements." "She did not seem to be *conscious* (aware) of his

presence." "Tomatoes are said to be very *healthy* (wholesome) food." "I could not *persuade* (convince) him that he was wrong." "How are the new regulations likely to *effect* (affect) your school?" "In this way you will be more *liable* (likely) to get at the truth." "I offered to *loan* (lend) him my book." "That isn't the way the last teacher *learned* (taught) us to do it." "I *expect* (suppose) you had a pretty lively time at the meeting last night." "There could not have been *less* (fewer) than a dozen boys in the room at the time." "I never saw such a *quantity* (number) of sheep at a show before." "Apples are not likely to be so *plenty* (plentiful) this season." "His remarks on the proper *observation* (observance) of the Sabbath were listened to with great attention." "The attempt was soon found to be *impracticable* (hopeless or unsuccessful)." "You may *esteem* (consider) yourself fortunate to escape so easily." "Had this been done, there is little doubt that their *object* (attempt) would have been successful." "A verb must agree with its *nominative* (subject) in," etc. "He *allowed* (admitted) that he might have been present." "A *couple* of (two) accidents happened in that way last week." "Dr. M. then took the platform, and *demonstrated* (discussed, or dealt with) the subject of Algebra for over an hour." "In the meantime events were *transpiring*" (occurring or happening). "After several hours had *transpired*" (elapsed). "To rob a man of his *character*" (reputation). Others are less easily accounted for, as: "He has *enjoyed* (had) very poor health lately." "The whole family *enjoy* (have) a rather bad reputation in the community." "He says he never saw the letter till it appeared in print, a *fact* (statement) which I can prove to be false." "With such facilities for *filling up the ranks* (filling the places) of inefficient teachers,"

etc. "To the excellencies of this institution most of our public men are indebted for their *abilities*" (?) (Editorial defending U. C. College). Or the following from a Public School Inspector's Reports: "Such trustees *perish* (ruin) the best interests of their schools." "All these things should be taken into *deliberation*" (consideration). "Parents require to have this idea *transmuted* (?) into their minds."

II. Coming now to the second quality we mentioned, viz., Clearness, we may notice that the corresponding faults are *ambiguity* and *obscurity*. Of these the former is generally due to some one of the following causes:—(1) The use of a word that has different meanings, as: "You don't seem to like anything that I *do*." "Proceeding a little further they discovered *certain* indications of the presence of Indians." "He *observed* that the attendance was smaller than usual." "I can't find *one* of my books." "I did not promise to accept *any* offer you might make." "A respectable widow *wants* washing; apply at No. —." "Common sense, Mr. Chairman, is all that I *want*." (2) Ellipses, as: "They have no more control over him *than others*." "I believe he likes her *as well as Mary*." "Twelve years ago he came to this town with only one shirt to his back, and now he is worth *thousands!*" "This fact is patent, that without due examination, or (with) useless because ineffective examination, the book has been sanctioned by the Department." "The woodshed *and contents* of Mr. A., Otonabee, was burned last Sunday morning." (3) Careless use of pronouns, especially *he, it, they, and which*, as: "He told his friend that if *he* did not feel better in half-an-hour, *he* thought *he* had better return." "Old English poetry was very different then from what *it* is

now" (Brooke's English Literature Primer). "The party of Union and Progress *is* as superior to the Grits in patriotism and political morality as *they* are in constitutional practice and common sense." "There was a tavern next door *which* was a great injury to the value of the property." (4) Misplacement of words or clauses: "A few *minutes* are required after giving the order, to ensure a hot breakfast, *which might otherwise seem an unnecessary delay*" (Hotel bill of fare). "He was taking a view from a *window* of the cathedral of Lichfield, *in which* a party of Royalists had entrenched themselves." "Metal types were now introduced, which before this had been made of wood." "There has not been a single factory closed on account of the N. P." "One of our town sportsmen shot fifteen brace of partridge, *along with a friend*, on Saturday afternoon last." Occasionally the insertion of an unnecessary word may lead to absurdity, if not ambiguity, as: "Unfortunately, before it could be destroyed the rabid animal bit a child of Mr. A., the blacksmith, and several *other* dogs."

Obscurity.—This may be due (1) to a want of simplicity in the language. Passing by such cases as that of Dr. Johnson, who is said to have defined a *net* as "a reticulated substance with interstices between the intersections," I may remark that this is a common failing of young and ambitious writers, who are apt to forget that, as Swinton says, "large words will not increase the size of small thoughts," and that volume of sound will not compensate for lack of sense. Reporters, too, are frequent offenders in this respect, often, no doubt, from a natural desire to vary their expressions, but more frequently, perhaps, from a wish to produce a more striking or humorous effect. Thus, in the hands of the reporter, such simple phrases as "begin," "met an old

man," "shared in the profits," "went home at once," become respectively "take the initiative," "encountered an elderly individual," "participated in the pecuniary advantages," "proceeded to his residence without unnecessary delay;" while a plain "farmer" is metamorphosed into "a gentleman identified with the agricultural interest." A story which the most of you have doubtless read or heard well illustrates the difficulty that plain people may have in understanding this style. The head of the household was slowly and laboriously reading the account of a distressing and fatal accident. To the good wife's frequently interrupting query, "Was he killed?" the old man replied by asking her to have patience. Finally, on her renewing her inquiry, after he had read the closing sentence—which ran somewhat as follows: "The services of the nearest physician were at once called into requisition, but ere he could reach the fatal locality, the immortal spirit of the unfortunate victim had quitted its earthly habitation"—he could only respond, "Wall, wife, it really don't say, after all!" (2) To the unnecessary use of technical terms. This is generally (and, I think, rightly) considered to be a characteristic fault of our legal and medical brethren. Who, for instance, that has heard the formal indictment of a prisoner, say for assault, can wonder that an unfortunate wretch, when asked what he had to say, has been known to assure his Honour, with faltering lips, that "he had never done the *tenth part of them things*;" or that a plain jurymen, who heard a doctor testify that "he found on examination a contusion of the integuments under the orbit, with an extravasation of blood and ecchymosis of the surrounding cellular tissue, which was in a tumefied state, and also with a slight abrasion of the cuticle," should never have suspected that the patient in

question was merely suffering from what is commonly and simply described as *a black eye*. (3) The third and last cause of obscurity that I shall mention is the use of long and involved sentences, abounding in particulars and wanting in *unity*. This will be found to be a common fault of school compositions, and also of many official documents. My time and space will not permit me to quote examples; and I shall therefore content myself with reminding you that the cure for this evil lies in remembering that a sentence is the expression of a *single thought*, not of several thoughts, and in avoiding (1) unnecessary change of the subject; (2) the crowding together of unconnected facts or ideas; (3) the use of long or frequent parentheses.

III. FORCE.—I have already expressed the opinion that we cannot by direct instruction do much towards enabling our pupils to acquire this quality. A few rules may help, however, to put them on their guard against some common causes of *weakness*. (1) Avoid Pleonasm, whether in the form of simple redundancy, as: "He has (got) more money than he knows what to do with." "Remember, children, that (the period of) youth is the time to form correct habits." "This method will be found to work well in the case of (new) beginners"; or of Tautology, as, "They will soon have an *entire monopoly* of the *whole* trade of the North-west;" or of Circumlocution, which is generally a characteristic of the so-called "fine writing," already referred to as so frequently indulged in by ambitious young writers and newspaper reporters. (2) Avoid the too frequent use of connectives, such as "so," "and"—a very common fault in compositions, which I have known to consist of a single long sentence held together by a succession of "ands." (3) Avoid what is known

as "weak endings," or, having sentences end with unemphatic or unimportant words. (4) Avoid a "loose" structure as contrasted with the "periodic," in which the interest is sustained by keeping the sense incomplete till the close of the sentence. Thus contrast the following: "Cromwell called a council of his chief officers, at Windsor, secretly, at the suggestion of Ireton," with "At the suggestion of Ireton, Cromwell secretly called a council of his officers at Windsor."

IV. HARMONY.—This, like Force, can scarcely be taught by rules. The following cautions may, nevertheless, be of service: (1) Avoid the repetition of the same or similar sounds, unless for some special object—thus: "He was very *anxious* to be relieved of all *anxiety*." "He *used* to *use* many expressions *not usually used* by good writers." "He *certainly* acted *extremely cautiously*." (2) Vary the form of expression so as to avoid having a succession of similarly constructed sentences. (3) Arrange words and clauses so as to have the longest and most sonorous coming last, and to give a sort of rhythm to the sentence.

And now a few words with regard to the use of figurative language, and I shall bring my paper to a close. While there is no doubt that metaphors may add clearness and force, as well as elegance, to a description,

three cautions are to be borne in mind in regard to their use: (1) That they should not be inappropriate or too far-fetched, as: "The *magnum opus* of education is *creeping* up the *steep ascent* of *efficiency*" (Public School Inspectors' Reports). The memory is nourished to fulness; but the reason, judgment, and understanding *do not get their daily bread*—they are treated as *orphans of the mind*" (*Ibid.*). "The questions will *partake* of the same *complexion* as his teaching" (*Ibid.*). (2) Metaphor and literal statement must not be combined in the same description, as: "The heroic Spanish gunners had no defence but *bags of cotton* joined to their *own insuperable courage*." (3) Metaphors should not be mixed or confused in the same description, as: "Many embark in the profession without training, experience, or adaptation, and having neither compass nor rudder to guide them, they steer for no particular harbour. This *leakage* can only be stopped by," etc. (Public School Inspectors' Reports). "Irregularity of attendance is a *log and chain* on the progress of instruction, for it *blasts* and *withers* the noblest purposes of the best of teachers" (*Ibid.*). "The knowledge thus acquired being associated with reason, would not be a *passing cloud*; and being resident in them, it would serve as a *pilot* to their judgments in *solving the problems of life*" (*Ibid.*).

HAVE you learned the secret of silence? Silence under injuries, when speech would breed wrath; amid discouragements when it would spread fear? Silence through well-doing, which speech would mar by telling; after successes, to trumpet which were to fail? There are times enough for speech; times when silence is false, cowardly, treach-

erous. To know *when* to be silent, and *how* to be silent, neither defiantly nor artfully, but gently, truly and strongly; a silence of the mouth uncontradicted by look of the face or thought of the heart; this is one of the finest of the fine arts, one of the most beautiful of the beauties of holiness. "He shall not strive nor cry; neither shall any man hear his voice in the streets."

UNIVERSITY WORK.

MATHEMATICS.

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

CAMBRIDGE EXAMINATION
PAPERS.

MATHEMATICAL TRIPOS.

1. Triangles on equal bases, and between the same parallels, are equal to one another.

Find the condition that must exist in order that it may be possible to fold the four corners of a quadrilateral piece of paper flat down on the paper so that the four angular points meet in a point, and the paper is everywhere doubled.

2. If a straight line drawn through the centre of a circle bisect a straight line in it which does not pass through the centre, it cuts it at right angles.

Draw from a given point P two straight lines PQ , PR at a given inclination to one another to meet two given straight lines in Q and R , so that PQ , PR may be equal.

3. The angles in the same segment of a circle are equal to one another.

If A , B be two fixed points on a circle, and C , D the extremities of a chord of constant length, then the intersections of AD , BC and of AC , BD lie on fixed circles.

4. If a chord of a circle and a diameter intersect at right angles, the rectangle contained by the segments of one of them is equal to the rectangle contained by the segments of the other.

If P be a point in a diameter AB of a circle, and PT be the perpendicular on the tangent at a point Q , then
rect. PT , AB = rect. AP , PB + sq. on PQ .

5. In a right-angled triangle, if a perpendicular be drawn from the right angle to the base, the triangles on each side of it are similar to the whole triangle.

Show that the middle points of the four common tangents to two circles which lie outside each other lie on a straight line.

1. An article made of sterling silver weighs as much as $5s. 6d.$ in silver; the same article and a fourpenny-piece together weigh $1\frac{1}{4}$ oz. avoirdupois. The cost of the article is $11s. 5\frac{1}{2}d.$; what is this per oz. Troy?

2. Find two independent relations between the roots and the coefficients in a quadratic equation.

If the result of eliminating x between the equations

$$x^2 + px + q = 0 \text{ and } xy + a(x+y) + b = 0$$

be an equation in y , whose roots are the reciprocals of those of the given equation in x , then either $a(1-g) = 0$ and $ap = 1 + b$, or $b = 1$ and $p = a(1+g)$.

3. Eliminate x , y , z from

$$\frac{x^2 - xy - xz}{a} = \frac{y^2 - yz - yx}{b} = \frac{z^2 - zx - zy}{c},$$

and $ax + by + cz = 0$.

$$\text{Solve (i.) } \sqrt{(ax + \beta)} + \sqrt{(a'x + \beta')} \\ = \sqrt{(ax + b)} + \sqrt{(a'x + b')}$$

where $a + a' = a + a'$ and $\beta + \beta' = b + b'$;

$$\text{(ii.) } \sqrt[3]{(3a + a^2 - 3x - x^2)} = \frac{3}{a^2 + 1}.$$

4. Find the sum of n terms of a geometrical progression when the r^{th} and s^{th} terms are known.

B holds an estate from A on a lease with two years unexpired. He has made permanent improvements on it and sublet it for £510 per annum. Reckoning yearly interest at 4 per cent., the present value of the estate to A is 24 times B 's interest in it. What rent is B paying to A ?

5. Assuming the binomial theorem for a positive integral index, prove it for a fractional one.

Prove that, if the difference between p and a perfect cube, N^3 , be less than one per cent. of either, $\sqrt[3]{p}$ differs from $\sqrt[3]{N} + \frac{p}{N^2}$ by less than $\frac{N}{90000}$.

6. Find the number of combinations of n things taken r together.

Prove that, if each of m points in one straight line be joined to each of n in another by straight lines terminated by the points, then, excluding the given points, the lines will intersect $\frac{1}{2}mn(m-1)(n-1)$ times.

7. Define the tangent of an angle, and from the definition show that $\tan(180^\circ - A) = -\tan A$.

Prove directly from the definitions of the trigonometrical functions that

$$\frac{1 + \cos A}{\sin A} = \cot \frac{1}{2} A.$$

Find the general values of A from the equation $\tan A + \sec 2A = 1$.

8. Show *a priori* that when $\sin A$ is expressed in terms of $\sin 2A$, four values are to be expected generally.

If $\sin 2A = a$, what values of A give the following equation,

$$2 \sin A = -\sqrt{1+a} + \sqrt{1-a}?$$

Prove that, if $\sin 4A = a$, the four values of $\tan A$ are given by

$$\frac{1}{a} \left\{ (1+a)^{\frac{1}{2}} - 1 \right\} \left\{ 1 + (1-a)^{\frac{1}{2}} \right\}.$$

9. Prove that, if $A + B + C = 180^\circ$,

$$\begin{aligned} \sin^4 A + \sin^4 B + \sin^4 C \\ = \frac{3}{2} + 2 \cos A \cos B \cos C \\ + \frac{1}{2} \cos 2A \cos 2B \cos 2C, \end{aligned}$$

and that, if

$$\begin{aligned} \frac{\sin r a}{l} = \frac{\sin (r+1)a}{m} = \frac{\sin (r+2)a}{n}, \\ \frac{\cos r a}{2m^2 - l(l+n)} = \frac{\cos (r+1)a}{m(n-l)} = \frac{\cos (r+2)a}{n(l+n) - 2m^2} \end{aligned}$$

10. Prove that, if θ be the circular measure of an angle less than a right angle, $\frac{\sin \theta}{\theta}$ lies between 1 and $1 - \frac{1}{3}\theta^2$.

Find the value of $\sin 3''$ to ten places of decimals.

11. Find the area of a triangle in terms of one side and the adjacent angles.

If a triangle be cut out in paper and doubled over so that the crease passes through the centre of the circumscribed circle and one of the angles A , the area of the doubled portion is $\frac{1}{2} b^2 \sin^2 C \cos C \operatorname{cosec} (2C - B) \sec (C - B)$, C being $> B$.

12. It is observed that the altitude of the top of a mountain at each of the three angular points A, B, C of a plane horizontal triangle ABC is a : show that the height of the mountain is $\frac{1}{2} a \tan a \operatorname{cosec} A$.

Show that, if there be a small error n'' in the altitude at C , the true height is very nearly

$$\frac{1}{2} \frac{a \tan a \left(1 + \frac{\cos C}{\sin A \sin B} \frac{\sin n''}{\sin 2a} \right)}{\sin A}.$$

PROBLEMS IN ARITHMETIC,

by W. S. Ellis, B.A., Mathematical Master, Collegiate Institute, Cobourg.

1. Find the largest square number which is an exact divisor of 3780? *Ans.* 36.

2. The prices of seats at a lecture were 50 cts., 35 cts., and 25 cts. It is known that for every 3 seats sold at 35 cts. there were 4 at 25 cts., and for every 3 at 50 cts. there were 4 at 35 cts.; and the whole sum realized from the sale of seats was \$76.20. How many of each kind were sold?

Ans. 96 at 25 cts., 72 at 35 cts., and 54 at 50 cts.

3. At an examination $\frac{1}{4}$ of the candidates made 75 per cent. on the paper set, $\frac{1}{2}$ of the remainder made 60 per cent., $\frac{1}{3}$ of the remainder made 50 per cent., and half of the remainder failed; but the number who failed was greater by 9 than the number that made 75 per cent. How many were in the class? *Ans.* 48.

4. By what must $\frac{1}{4}$ of $\frac{3}{4}$ of $\frac{1}{2}$ be diminished so that the result may be $\frac{1}{4}$ of that obtained by multiplying $(\frac{2}{3}$ of $\frac{3}{4} + \frac{1}{4})$ by $(\frac{2}{3} - \frac{1}{3}$ of $\frac{3}{4})$. *Ans.* $1\frac{1}{3}$.

5. Which is greatest, .44, .44, or .44? Express the difference between each pair as a decimal, and determine in each case whether this decimal is finite, a mixed repetend, or a pure repetend. *Ans.* Last two are equal.

6. If 20 lbs. of green tea be mixed with

25 lbs. of black tea, and $\frac{1}{4}$ of cost be made by selling the mixture for \$35.40; and if the green tea cost 60 cts. per lb., find the cost of the black tea.

Ans. 70 cts.

7. What is the value of the following pieces of timber at 7 cts. per cubic foot: 8 pieces 35 ft. long and 14 in. square; 6 pieces 30 ft. long and 10 by 16 in.; 12 pieces 40 ft. long and 12 by 14 in.; 9 pieces 16 ft. long and 8 by 4 in.

Ans. \$82.11.

8. A drover having bought 300 sheep, kept 50 of them and sold the rest at 75 cts. each more than he paid for them, thus clearing \$62.50 above the cost of the whole lot. How much did he pay for the sheep?

Ans. \$2.50.

9. If 8 Englishmen can do in 10 days a piece of work that would require 6 Englishmen and 4 Germans to complete in 9 days, find how long it would take 12 Germans to finish a job that 10 Englishmen can do in 16 days.

Ans. $18\frac{2}{3}$ days.

10. How many bricks, each 8 in. long, 4 in. wide and 2 in. thick, will be required to build a house 30 ft. by 36, walls being 14 ft. high and 6 in. thick, if there are in the walls 4 doors, each 7 ft. by 4, and 10 windows, each 6 ft. by 4: 200 bricks being allowed for waste, and $\frac{1}{2}$ of the wall being composed of mortar?

Ans. 18366 $\frac{1}{2}$.

11. In the previous problem, had the last clause read, "the mortar used with each brick being equal in volume to $\frac{1}{2}$ of the brick," would the same answer have been correct? Why?

12. With carpet 2 ft. wide, at 75 cts. per yard, the cost of covering the floor of a room, whose length is $1\frac{1}{2}$ times its breadth, is \$54. If the height of the walls of the room be two-thirds of the breadth, what will be the cost of covering these walls with paper, the price being 35 cts. per roll of 6 yds?

Ans. \$13.06 $\frac{2}{3}$.

13. 20 per cent. of *A*'s money equals 30 per cent. of *B*'s, and the interest on *A*'s money for 1 year at 5 per cent., and on *B*'s for 1 year at 6 per cent., amounts to \$175. How much money had each?

Ans. *A*, \$1944 $\frac{2}{3}$; *B*, \$1296.27.

14. A note drawn for a certain sum on April 1st, at 9 months, and bearing interest at 8 per cent. per annum, is sold for \$450 on July 1st. If the purchaser makes 10 per cent. per annum on his investment, what was the face of the note?

Ans. \$465.75.

15. Show that the true discount on the interest is equal to the interest on the discount for same time at same rate—interest and discount being taken on the same sum.

16. A merchant buys wine at \$1.80 per gallon; pays a duty of $33\frac{3}{8}$ per cent. on the invoiced price, and also a specific duty of 60 cts. per gallon. At what price must he sell it so as to gain 30 per cent. on cost?

Ans. \$3.90 per gallon.

17. What was the cost price of goods that a man made \$75 on after paying an import duty of 20 per cent., and selling at an advance of 28 per cent. on invoiced price?

Ans. \$937.50.

18. If selling price be 15 per cent. advance on cost, what percentage of cost would 15 per cent. of selling price be?

19. 15 yds. cloth at 60 cts., discount of 5 per cent.; 8 yds. at \$2.50; 8 yds. at \$2.25; 16 yds. at \$1.75; 12 yds. at \$1.40, discount of $7\frac{1}{2}$ per cent.; 20 yds. at \$1.40; 1 doz. hats at \$2.25 each; $\frac{1}{2}$ doz. at \$1.50; $2\frac{1}{2}$ doz. at \$1.25; $1\frac{1}{2}$ doz. scarfs at 65 cts., discount of 10 per cent.; 15 doz. collars at 15 cts. each; 1 doz. ready-made suits at \$10.50 each, discount of 5 per cent. Received on above account \$150 at time of purchase; if 10 per cent. be allowed off for cash, how much will settle the bill at the end of 3 months, no interest?

Ans. \$182.15.

20. \$356 worth of goods were bought on January 15th, and a payment of \$75 was made on the same day. Another payment of \$75 was made on March 1st. If 10 per cent. be allowed off for cash at time of purchase, and 5 per cent. for cash paid any other time within three months, how much money will be required to settle the account on July 1st—no interest?

Ans. \$193.71.

21. A man bought butter, but cheated in the buying, so that for every 10 lbs. he got he only paid for 9. In selling it he was also

dishonest, so that for every 9 lbs. he gave he got pay for 10. What was his gain per cent.?

Ans. 23 $\frac{1}{3}$ %.

22. \$600 is due on January 1st, 1882, and \$600 on January 1st, 1883; what sum paid on July 1st, 1882, should cancel the debt?

Ans. \$1200.92.

23. A hemispherical vessel whose internal diameter is 1 ft. has lying on its bottom a sphere of such size that a cord stretched across the top of the vessel is tangent to the sphere. How many pounds of water will fill the vessel?

Ans. 12 $\frac{1}{2}$ lbs.

24. A manufacturer sold 600 yds. of cloth, receiving therefor a three-months' note bearing interest at 8 per cent. per annum. This note he immediately discounted at the bank at the rate of 12 per cent. per annum, the banker making \$1.01603 by using bank instead of true discount. Find the price per yard at which the cloth was sold.

Ans. \$1.90.

Will some of our contributors be good enough to send us solutions to the following problems? A teacher, who is a subscriber, asks for them.

ALGEBRA.

1. If $(a^2 + bc)(b^2 + ca)(c^2 + ab) = 0$, prove that

$$\frac{1}{a^2} + \frac{1}{b^2} + \frac{1}{c^2} + \frac{1}{abc} + \frac{a^2 + b^2 + c^2 + abc}{a^2 b^2 c^2} = 0.$$

2. If $x + y + z = 0$, prove that $(x^2 + y^2 + z^2)^2 = 27x^2 y^2 z^2$.

ARITHMETIC.

1. A mortgage, dated 1st January, 1872, payable in three equal annual payments of \$200 each, with interest on the whole payable half-yearly at 6 per cent., is sold on 1st July, 1872; what sum must the purchaser pay so that the investment may be worth 8 per cent.?

2. A farmer mixes corn and wheat in the ratio of 8 to 9; had he taken 12 bushels more corn and 9 bushels more wheat, the ratio would have been as 12 to 13; how many bushels of each did he take?

MODERN LANGUAGES.

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ENGLISH.

Selected from various sources.

1. Discuss the influence of Norman French on (1) The vocabulary, and (2) The grammar, of the English language.

2. Why does the addition of *en* change *cat* into *kitten*?

3. What do you understand by "gender" in grammar? Show how your definition applies to each of the following:—*Aunt, sempstress, she, that, man-servant, testatrix, mistress, heroine, margravine.*

4. How many separate vowel sounds are there in English, and how many true diphthongs? Show in what way defect or redundancy in the alphabet disguises the true nature and relations of these various sounds.

5. Rewrite the following passage, substituting words of Saxon origin for those of Greek or Latin origin:—

"The old man trusts wholly to slow contrivance and gradual progression. The youth expects to force his way by genius, vigour, and precipitance. The old man deifies prudence. The youth commits himself to magnanimity and chance. Age looks with anger on the temerity of youth, and youth with contempt on the scrupulosity of age."—*Johnson.*

6. Account for the italicized portions of the following words:—*Newt, coward, streamlet, asleep, enough, atonement, kindred, gain-say, forgive, am, loveth.*

7. Discuss the various uses, forms, meanings and constructions of the verbs *do, own, and think*, respectively, giving examples.

8. Give examples of the way in which the study of the English language illustrates and corroborates what we learn from English history.

9. Give examples of the different uses of *that* and *but*, accounting in each instance for the structure.

10. Give rules for the proper use of *shall* and *will*, and *should* and *would*, in principal and subordinate sentences.

11. "Words indicating relations are often

traceable to nouns and verbs." Comment on this statement and illustrate it by examples.

12. Criticize the literary form of the following :—

(a) "If all elementary studies were taught by 'reason' and not by 'rote' (as under the old mode, now gradually disappearing), by competent teachers of trained experience, their practical value would, in a large measure, be secured, and at the same time the whole character of the children much improved under the influence of such teachers; for a truly national system is as much concerned in rearing up a moral as well as an intelligent population, and securing honesty and fair dealing as essential qualities of every citizen, as well as mental culture."

(b) "While larger educational benefits can thus be obtained through improved methods of teaching and discipline, yet success here, and in useful results from special studies, depend altogether upon the capacity and knowledge of the teacher in the several subjects."

(c) "He would also make the passing of the subjects of the Intermediate a necessary condition to entering the teaching profession, but would utilize the Intermediate papers as part of those required for third-class candidates, but that the second and third-class papers should be distinct."

(d) "The High Schools, however, occupy quite a different position in affording opportunities for secondary education for such only as may avail themselves of them, and the expenditures for which may well be left to the public opinion of each locality."

(e) "The children in our elementary schools are capable of acquiring elementary teaching, without any fear that either their physical or mental energies will be over-taxed to an extent which, under the favourable conditions in which our community is happily placed, we can safely venture upon, in comparison with any other community, provided modes of teaching in harmony with nature's laws are required to prevail, and thus aiding and strengthening the child's mental and physical development."

PAPER ON COWPER.

"Task"—Book III.

By T. D. Redditt, B.A., St. Catharines.

1. To what do you attribute the great popularity of Cowper's works from their first appearance to the present day? By what class of readers has he always been most highly esteemed?

2. Illustrate from the "Task," Book iii., the most striking features of the poet's character as a man.

3. Give an estimate of his genius as to (1) Imagination; (2) Humour.

4. Among the chief blemishes of Cowper's works none have been more dwelt upon than the frequent occurrence of passages quite prosaic, and of trivial thoughts clothed in sounding phrase. Illustrate by reference to Book iii.

5. What plea may be set up in extenuation of the poet's narrow-mindedness and bigotry?

6. Discuss very briefly the question, "Should a knowledge of a writer's life and times always precede a knowledge of his works?" and illustrate your answer by reference to Cowper.

7. (a) "What's the world to you?
Much."

(b) "God never meant that man should
scale the heavens
By studies of human wisdom."

(c) "What's that which brings contempt
upon a book,
And him that writes it, though the
style be neat,
The method clear, and argument exact?
Tell me, and I will tell thee what is
truth."

(d) "Pure is the nymph, though lib'ral of
her charms,
And chaste, though unconfined, whom
I extol."

(e) "But we have bid farewell
To all the virtues of those better days,
And all their honest pleasures."

(1) Write brief explanatory notes on the above passages.

(2) Estimate their *poetic element*, in the common acceptance of the word "*poetry*."

(3) Discuss them in regard to *thought* and *sentiment*, basing your remarks on the maxim that the sentiment or thought is of altogether

greater value than the language in which it is expressed.

PAPER ON GOLDSMITH.

"The Deserted Village."

1. In what do you find the great charm of this poem to consist?

2. Explain the structure of the verse, and point out deviations from the scheme of the typical iambic pentameter line.

3. Give examples of lines rhythmical and lines that halt and hobble.

4. "Goldsmith's fallacy lies in identifying Trade and Luxury."—*Fales*.

This poem "is graceful in one of the greatest graces of poetry—its transitions."—*Scott*.

Explain and illustrate.

5. Distinguish between *simile* and *metaphor*, giving examples of both from "The Deserted Village."

6. What is meant by *onomatopœia*? Give examples of this figure of speech.

7. "In all my wanderings round this world of care,
In all my griefs—and God has given my share—"

Illustrate from the poet's life.

8. Write explanatory notes on the following quotations:—

(a) "These (sounds) all in sweet confusion sought the shade,
And filled each pause the nightingale had made."

(b) "The plashy spring."

(c) "Mantling cresses."

(d) "His pity gave ere charity began."

(e) "And e'en the story ran—that he could gauge."

(f) "And news much older than their ale went round."

(g) "I see the rural Virtues leave the land."

COWPER AND GOLDSMITH.

1. Contrast Cowper's period with Goldsmith's, as to—

- (1) Prevailing influences.
- (2) Leading characteristics.

2. Contrast Cowper with Goldsmith, as to—

- (1) Characteristics of style.
- (2) Literary productions.
- (3) Importance in English literature.

FRENCH.

QUESTIONS ON SECTION I. OF CHAP. XI. OF "UN PHILOSOPHE SOUS LES TOITS."

By T. D. Redditt, B.A., St. Catharines.

1. *A travers la porte*.—Show by examples the difference between *à travers* and *au travers*.

2. *Ils allaient en glissant*.—Illustrate by examples the use of the so-called gerund and also that of the participle.

3. *De plus en plus*.—Give, with meanings, other adverbial phrases of similar construction.

4. *Enfin mon livre glissa à terre*.—Distinguish *à terre* from *par terre*.

5. *En diligence*.—Distinguish between *être en diligence* and *être dans la diligence*.

6. *Par un jour d'hiver*.—Give examples of the various uses of *par*.

7. *Sans y penser*.—Distinguish from *en penser*.

8. *Deviner la taille*.—When should *stature* be used?

9. *Souffrir chez lui ni fleurs ni animaux*.—Explain the omission of the article.

10. Translate into English:—On pouvait présumer que l'homme insensible à la grâce et à l'humble affection, serait mal préparé à sentir les jouissances d'une union choisie.

GERMAN.

QUESTIONS ON GERMAN GRAMMAR.

By T. D. Redditt, B.A., St. Catharines.

1. Decline in full (1) Einige gute Leute. (2) Zwei starke Männer. (3) Ich armer, ich arme, ich armes. (4) Das viele Geld.

2. Write brief notes on the declension of *viel*, *wenig*, and their comparatives *mehr* and *weniger*.

3. Translate into German:—(1) There is a great number of wicked people. (2) There are many of us. (3) There were few of them. (4) How many are there of them? (5) There are more of us. (6) There are fewer of them.

4. Explain the superlatives *Am schönsten*, *am neuesten*, etc.

5. Explain the forms *Drittehalb*, *vierte-*

halb, etc., and express in German (1) one and a half; (2) five guineas and a half; (3) three years and a half.

6. How are fractional numbers formed in German? Explain the composition.

7. Show the difference between ganz and all, by rendering into German (1) The whole town; (2) at all times; (3) the whole time.

8. Illustrate the use of mögen in the following examples: (1) He may do it; I do not forbid him. (2) It might happen; it might rain. (3) Who can recount thy wonders? (4) I do not like to do it. (5) Do you like wine? No, I do not. (6) I want no more.

9. Illustrate the use of können in the following sentences:—(1) You may do it, if you like. (2) The boy can say his lesson. (3) Do you know German?

10. Illustrate the use of dürfen in the following sentences:—(1) May I ask? (2) It might perhaps be true. (3) It need not, then, necessarily be the case. (4) He dares to do all he is able.

CLASSICS.

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

NOTE.—All communications upon School Work in this Department must be sent to the Editor of it, not later than the 5th of each month.

EDUCATION DEPARTMENT, ONTARIO.

“INTERMEDIATE” LATIN, JULY, 1881.

(Continued from page 134.)

PART III.

GRAMMAR AND COMPOSITION.

1. What terminations of the third decl. have *i* in the ablative singular?

2. Compare *pulcher*, *pius*, *facilis*. What other adjectives are compared like *facilis*?

3. Mention the *preteritive* and the *neuter-passive* verbs.

4. Mention the government of *miseret*. What other verbs adopt the same construction?

5. What is the construction after impersonal verbs?

6. After what particles does *quis* stand for *aliquis*?

7. What is the construction after verbs of commanding?

8. When does *quum* take the subjunctive, and when the indicative?

9. Translate into Latin—

(a) Fabius Pictor was sent, by order of the Senate, to the oracle of Apollo at Delphi, to inquire (scitor) by what prayers they might appease the gods.

(b) And not to be tedious, O Romans, we ordered the tablets, which were said to have been written by each, to be produced. We first showed the seal to Cethegus; he acknowledged it: we cut the thread; we read. It had been written with his own hand to the Senate and the people of the Allobroges, that he would do that of which he had assured their ambassadors.

ANSWERS AND NOTES.

1. (1) The abl. in *i* is found exclusively—(a) In nouns having the acc. in *im* [see note], also *securis*; (b) In the following adjectives used as nouns: *aquālis*, *annālis*, *aquālis*, *consulāris*, *gentilis*, *molāris*, *principilāris*, *tribūlis*; (c) In neuters (nom. in *e*, *al*, *ar*), except *baccar*, *jubar*, and sometimes (in verse) *mare*, *rēte*.

(2) The abl. in *i* is sometimes found—(a) In *avis*, *clavis*, *febris*, *finis*, *ignis*, *imber*, *navis*, *ovis*, *pelvis*, *sēmentis*, *strigilis*, *turris*; (b) In the following adjectives used as nouns: *affinis*, *bipennis*, *canālis*, *familiaris*, *natalis*, *rivalis*, *sapiens*, *triremis*, *vocalis*.

(3) The abl. of *fames* is always *famē*. The defective *mane* has sometimes abl. *manī* (probably locative).

(4) Most names of towns in *ē*—*Praneste*, *Cære*,—and the mountain *Soracte* have the abl. in *e*.

(5) Always *aquā* et *igni* interdicti.

NOTE.—(1) The acc. in *im* is found exclusively—(a) In Greek nouns and names of rivers; (b) In *buris*, *cucumis*, *ravis*, *sitis*, *iussis*, *vis*; (c) In adverbs in *tim* (being acc. of nouns in *tis*), as *partim*; and in *amussim*. (2) The acc. in *im* is sometimes found in *febris*, *restis*, *turris*, *securis*, *sementis* and (in a few passages) in many other words.—(Allen and Greenough.)

2. *pulchrior, pulcherrimus*; comp. only *magis pius, piusissimus*; *facilior, facillimus*. *Difficilis, similis, dissimilis gracilis, humilis*.

NOTE.—*Piusissimus* used by Antonius and condemned by Cicero, as: *verbum omnino nullum in lingua Latina*, but frequently in post-Aug. period.

3. *Memini, odi, novi, consuevi*; neuter-passive, *audeo, gaudeo, soleo, fido*.

NOTE.—(1) Neuter-passive, another name for semi-deponent. (2) The Active forms *vapulare*, to be flogged, and *venire*, to be sold (*venum ire*, go to sale), having a passive meaning, are sometimes called *neutral passives*. To these may be added *feri*, "to be made," and *exulare*, "to be banished." (3) The following words are sometimes found as semi-deponents: *juro, juratus; nubo, nupta; placco, placitus*.

4. (a) *Miseret* takes the genitive of the object with the acc. of the person affected—e.g., *Tui me miseret*; *Tui te nec miseret hec pudet*; (b) *pœnitet, piget, pudet, tædet* (or *pertasum est*).

NOTE.—*Miseret* is very rare; in early writers *miseretur, miserescit* are also used impersonally.

5. I. *Cases*.—(See above, 4)—The impersonals *interest* and *refert* take the genitive of the person (rarely the thing) affected—the subject of the verb being a neuter pronoun or a substantive clause. (*Clodii intererat Milonem perire*.) (a) Instead of the genitive of a personal pronoun the corresponding possessive is used in the abl. sing. fem. after *interest* or *refert*; as, *Quid tuâ id refert?* (b) The acc. with *ad* is used to express the thing with reference to which one is interested; as, *magni ad honorem nostrum interest*. (c) The dative is used after *libet, licet*. (d) The acc. is used after the impersonals *decet, delectat, iuvat, oportet, fallit, fugit, præterit*; as, *te non præterit* (it does not escape your notice).

II. *Moods*.—With most impersonal verbs (and with predicates consisting of *est* with a noun or adjective) the subject may be supplied (a) by the infinitive with or without a subject accusative, or (b) if the fact is to be made prominent or adduced as a reason by a clause with *quod*. *Me pœnitet vixisse* (I regret that I have lived); *Quod te offendi me pœnitet* (I regret that I have offended you).

(1) *Mos est, moris est, consuetudo est, consuetudinis est*, admit the subjunctive for the infinitive. (2) Adjective Predicates with Subjunctives.—*Reliquum est, proximum est, extremum est, verum est, mirum est*, etc., e.g. *Reliquum est ut certemus* (it remains that we contend).

2. With impersonal verbs signifying to happen—*accidit, contingit, evenit, fit—ut, ut non*, with the subjunctive, is generally used.

3. With impersonal verbs signifying it follows, remains, is distant, and the like, the subjunctive with *ut* is generally used, e.g., *Relinquitur ut quiescamus* (it remains that we should submit). (See Harkness, 553.)

6. *Si, nisi, ne, num, quando, etc.*

NOTE.—(1) The synn. *quis, aliquis* and *quidam* designate an object not denoted by name. *Quis* leaves not merely the object but even its existence uncertain; hence it is generally used in hypothec. and conditional clauses with *si, nisi*, etc. *Aliquis*, more emphatic than *quis*, denotes that an object really exists, but that nothing depends on its individuality; no matter of what kind it may be, if it is only one and not *no.se*. *Quidam* indicates not merely the existence and individuality of an object, but that it is known as such to the speaker, only that he is not acquainted with, or does not choose to give, its more definite relations. (2) After *si, nisi, ne, num, quo, quanto, aliquis* is used when "any" is emphatic. *Siquis* = "if anybody" without any emphasis; *si aliquis* = "if anybody," be he *who* or *what* he may (relating to *quality*); *si quisquam*, if there be anyone, though no more (relating to *quantity*), generally implying that there is probably none.

7. Generally the dative of advantage or disadvantage. The principal verbs of commanding are: *imperare, imperito, præcipere, mandare, præscribere, jubeo, hortor, moderor, tempero, veto, moneo*.

NOTE.—(1) *Impero*.—Gen. constr. with acc., an infin. or an object clause, a relative clause, with *ut, ne*, or the simple subj. with the simple dat. or absol.; e.g., *imperat Cassivelauno, ne*, etc. (B. G., 5, 22.) (a) acc. (and dat. of person). *Magnum his obsidum numerum imperat*. (B. G., 4, 22.) (b) Inf. or an object clause (especially frequent in the post-Aug. period; in Cicero and Cæsar only with the inf. pass. or dep. *Has omnes acturi as fieri*). (c) With a *rel. clause* very rare. (d) With *ut* and *ne*. *Huic imperat quas possit adeat civitates*. (Cæs., B. G., 4, 21.) (e) Simple dat. or abs.; chiefly poetic.

(2) *Imperito*.—Not frequent till after the Aug. period. Not in Cicero or Cæsar. Constr. acc. dat. or abs.

(3) *Præcipere*.—Const. with acc. *quicquid præcipies*; *de*; *de eloquentia*; dat. *alicui aliquid præcipere*; *inf. justitia præcipit parcere omnibus*; subj. alone, *præcipit atque interdicit omnes unum peterent traditionarum*. (Bell. Gall., v. 58.) Acc. and *inf.* as usual with vbs. of saying.

(4) *Mandare*.—Const. *alicui aliquid*, with *ut ne* the simple subjunctive, or with *inf. Huic mandat uti ad se revertatur*. (B. G., 4, 21.) *mandari versibus*. (Pro Arch., ix.)

(5) *Præcibere*.—Const. as *mandare*.

(6) *Jubco*.—(a) Acc. with object. clause; *legatum portum tenere*. (B. G. iv. 22, 25, 26, 27, etc.) (b) With *ut* or *ne*, if used absol. without name of a person. (c) With subj. alone ante-class and post-Aug. (d) With *dat. pers. jussu Britannico exsurget*. (e) With acc. pers. or thing. (f) Acc. of thing and *dat. pers. Jubere ei præmium tribui*. (Pro Arch., x.)

(7) *Hortor*.—Const. *aliquem, aliquem ad* or *in, ut, ne*, with the simple subj. *de aliqua re, ut fidem P. R. sequantur* (B. G., 4, 21); *Cohortati inter se ne*, etc. (B. G., 4, 25.) See Dict.

(8) *Moderor, temperare, aliquid*—to regulate, arrange; *moderor, temperare, mihi, iræ*, etc.—to set bounds to.

(9) *Veto*.—Const. most freq. with acc. and *inf.*; less freq. with the simple *inf.*: the simple acc. with *ut, ne*, or the simple subj. or absol.: *Sed eos fugientes longius Cæsar prosequi vetuit*. (B. G., 5, 9.)

(10) *Moneo*.—Const. *aliquem de re*; *aliquem aliquid*; *aliquem alicujus rei* (only in Tacitus), with *ut, ne*, or simple subj. with an obj. or relative clause: *Monuitque ad nutum et ad tempus omnes res ab iis administrarentur*. (B. G., 4, 23.)

8. The older grammarians require the indicative if *quum* denote pure time, but the subjunctive if denoting cause or reason. See, however, the discussion in Harpers' Latin Dictionary, *sub voce*, p. 491, col. 3, to be given in future Notes.

9. (a) Fabius Pictor Delphos ad oraculum missus est scisatum quibus precibus deos possent placare.

(b) Ac ne longum sit, Quirites, tabellas proferri jussimus quæ a quoque dicebantur datæ. Primum ostendimus Cethego signum;

cognovit. Nos linum incidimus: legimus. Erat scriptum ipsi manu Allobrogum Senatui et populo sese quæ coram legatis confirmasset facturum esse.

Analysis of Marks for Latin Paper, "Intermediate," July, 1881.

Maximum, 294; minimum for pass, 120. For translation into English, 36; for translation into Latin, 18. For Etymology, 87 (approx.); for Syntax, 89 (approx.); for Prosody, 24; for Synonymes, 15; for Allusions, etc., 25.

Examined in Latin "Intermediate."

1879.....	540,	of whom 339 failed.
1880.....	627,	" 217 "
1881.....	715,	" 355 "

—Report of Minister of Education, 1881, p. 106.

The reader may now compare the views of the Examiner as presented in his Paper, and the views of the Inspector as found in the Minister's Report, 1881, p. 95.

"Eighth Resolution [of the High School Masters, in their recent Convention]: 'Too much Latin and French for the "Intermediate." Pro Archia or its equivalent should be dropped. "I do not concur in this opinion. If any advantage is to arise from the study of Latin by the great number who are now engaged in it, it must be mainly from the acquisition of a vocabulary and a fair facility in rendering easy Latin into idiomatic English. I do not believe in the grammatical idolatry which marks some Masters. Of the thousands of pupils who are studying Latin, comparatively few go beyond the "Intermediate" work; with the passing of the "Intermediate," or before, their Latin course is finished. Why should such pupils waste time and energy over niceties of grammar or construction? If we are bound to have Latin studied by so many, let it be studied so as to have as great an educational value as may be under the circumstances."

See also Mr. Marling's Report, p. 99.

SCHOOL WORK.

SAMUEL McALLISTER, TORONTO, EDITOR.

HAMILTON CITY SCHOOLS.
PROMOTION EXAMINATION PAPERS,
DECEMBER, 1881.

(Continued from page 137.)

III.—Open at page 239.

1. Between what parties was the battle fought? 2. What was the cause of the quarrel? 3. Define *tattoo*, *garrison*, *elements* (last three lines of page). 4. In what direction does the Niagara run, and where are the *heights* from the village of Niagara? 5. State the result of the first skirmish. 6. How was Sir Isaac Brock killed? 7. What reinforcements arrived from Niagara, and under what commanders? 8. Give the result of the final engagement, and the losses on each side.

Eighth Grade.

I.—Books opened at page 47.

1. What was the "interval of suspense" (near bottom of page)? 2. Define "forecastle" (l. 1), "page" (l. 2), "comptroller" (l. 3), "dawned" (l. 7), page 48. 3. Which queen is spoken of (l. 2)? Was she on board the *Pinta* or on the island? 4. What is the "Te Deum"? 5. Define "transport" here, and also when differently accented. 6. For what did the crew ask pardon of Columbus? (Own words.) 7. Explain the phrase "inspired by Heaven" (l. 21). 8. Meaning of "far beyond the ideas and conceptions of former ages." 9. Why was possession taken "for the Crown of Castile and Leon"? 10. How were the inhabitants afterwards named Indians?

II.—Open at page 73.

1. Write the first verse in your own language. 2. Give all words sounded like "ere," and their meanings. 3. What are "tresses," and "glory?" (v. 1.) 4. De-

fine "landscape," and "enchanted." (v. 2.) 5. In what respect do mountains seem to be kings? (v. 2.) 6. How can trees "look" on the fields? (v. 3.) 7. What companions had Bryant in these walks? (v. 4.) 8. How does the sun "send the gale to wander here?" (v. 5.) 9. What is meant by "quiet smile?" (v. 5.) 10. What are the "kisses" mentioned in v. 7? 11. Explain the word "strife" (v. 8.) 12. Tell something of Bryant.

III.—Books closed. (III., IV., and V. written on the board.)

"The Founding of the N. A. Colonies" gives nine parts of this continent as settled by various nations. Name any six colonies, and the parties who founded them.

IV.—Form five sentences, each containing a pair of the following similar words, properly used: (a) cause and caws; (b) lea and lee; (c) canvas and canvass; (d) there and their; (e) mantle and mantel.

V.—Give two meanings for each of the following words: exact, concordance, gloss, fuller, mace and pulse.

Ninth Grade.

I.—Books open at page 44.

1. Name the principal coal fields of Canada. 2. State what you know of the formation of coal. 3. Why is coal called "the sinews of commercial prosperity?" 4. Give an instance of a coal field in course of formation. 5. Define "geologist," "shale," "aquatic," "combustible." 6. What is meant by "fossil vegetation?" (p. 46, l. 6.) 7. What is wrong in the 1st sentence of 2nd paragraph? 8. Explain "Repeating the story of its own existence."

II.—Open at page 140.

I. Near what lake does the capital of

Mexico stand? 2. What was the "indignity" mentioned in last line of page? 3. What is meant by "superstitions of their creed?" (l. 2, p. 141.) 4. How did the Mexicans come to slay their own king? 5. Why was the flag of "Castile" floated on the walls of Mexico? 6. Explain the 5th sentence (page 141). 7. Why are not the words "replied the conqueror of Mexico" in quotations? 8. To which race of men did the Mexicans belong?

III.—Books Closed.

Give the substance of "The Buccaneers" in five or six sentences of your own composition.

IV.—Form four sentences, each showing the use of the two words similarly sounded. (a) adds and adze; (b) canvas and canvass; (c) martial and marshal; (d) raze and raise.

V.—Write two words containing the short sound of *a*; two words containing the short sound of *i*; two words containing the long sound of *o*; two words containing the long sound of *u*—marking the letters.

COUNTY OF WELLINGTON PROMOTION EXAMINATION.*

First Class—Promotion to Second.

READING.

First Book, Part II., page 69:—"She was neat and clean—on his arm."

WRITING.

Copy on slates in script (not printing), page 70:—"I am a very little child—a better child to be."

DICTATION.

Pupils will take separate seats with slates. To be conducted in writing.

"They all four had grand romps in the fields, and in the barn, where they now had a good swing." "Here you see Florence at her tasks for next day's school." "Boys, who do not know how to steer their sleighs

well, ought not to ride down steep hills." "Wicked boys, who rob birds' nests, do not think of all the pain they give the old birds." Guard, creature, grass, please, scorn, tease and rough.

ARITHMETIC.

1. Write in figures seven hundred and nine, five hundred and thirty-seven, one hundred and seventy-three, four hundred and ten, eighty.

2. Express in words 306, 698, 101, XLIX, XC, IX, XL.

3. Find value of $68379 + 9634 + 867 + 96 + 60489 + 89 + 8$.

4. From 683201234 take 98324625.

5. Find value of $684 - 83 + 457 - 395 + 67 - 39 + 765 - 79$.

6. From one thousand and eleven take nine hundred and forty-five.

7. Find difference between 32506789030 and 6820456732.

8. A drover bought sheep as follows:—Of one man he bought twenty-seven, of another eighteen, of another fifteen, and of another twelve; afterwards he sold nineteen; how many had he left?

9. A lady bought a comb for 37 cents, some tape for 8 cents, some pins for 10 cents, some needles for 6 cents, and some thread for 6 cents. She gave 75 cents; how much change should she receive?

LITERATURE.

Open books and answer orally from page 36. 1. What is a light-house? 2. Why is it built on a high rock? 3. Why are lamps set at the top of the house? 4. What is malt? 5. Where do ice, salt, and malt sell well? 6. What is a ship? 7. What are meant by "quilt" and "love of self"? 8. Give the meaning of "the masts break off," "the waves overwhelm the poor man," "were soon drunk," "a young lion's whelp," and "a great lot of rum."

Entrance to Third Class.

LITERATURE.

On paper. Candidates to use Second Reader. Open books at pages 115, 116, 117, and 118.

*Kindly furnished for publication in THE MONTHLY by the courtesy of Mr. D. P. Clapp, Inspector of the Public Schools for Wellington County.—Ed. C. E. M.

1. Christmas comes on what day of the year? When is Christmas eve?

2. For what are chessmen used? What is meant by "some new music"? What are "sugar-plums"?

3. Why is Christmas morning very late in coming?

4. Explain the following:—"A little wiggle," "splendid books," "a queer stocking," "the sun never would rise," "a guard-chain," "little fur muffler," "red ivory," and "a pin-cushion."

5. Why is Christmas kept as a holiday?

6. Explain the meaning of "huddling," "Christmas boxes," "neighbour," and "parasol."

GEOGRAPHY.

Answers to be written on paper.

1. Name the four cardinal points of the compass. What point is exactly opposite the south? Half way between the north and east what point have we?

2. Name the four seasons of the year. April is in what season?

3. Bound the township of Nichol.

4. What is a cape? What is a peninsula? What is a gulf? What is a valley? What is a volcano?

5. Name all the municipalities in the county of Wellington.

6. Distinguish city, town and village, and make a complete list of any cities, towns and villages in Wellington.

7. Name any three rivers in the county.

ARITHMETIC.

On paper. Full work required. No marks unless correct and without changes.

1. From the sum of three hundred sixty-eight thousand four hundred fifty six, one hundred one thousand nine hundred forty-two, five hundred twenty-three thousand eight hundred sixty-four, seven hundred and twenty-nine thousand six hundred, one hundred twenty-nine thousand and four, take three hundred sixty-eight thousand four hundred fifty-six.

2. Write in Roman numerals 897, 308, 375, 983, 666.

3. Multiply 98765421 by 809.

4. The dividend is 235730444, the quotient 678, the remainder 14, find the divisor?

5. Write in words 630268, 90370, 201003 and 40523.

6. A man bought a horse for \$70, and paid \$15 for keeping him; he "let" him enough to receive \$24, and then sold him for \$74; did he gain or lose by the bargain, and how much?

7. A man bought 7 barrels of flour for \$63, and gave 5 barrels of it for cloth at \$3 a yard; how many yards did he buy?

8. A man owed \$67. At one time he paid \$16; at another \$9; at another \$11; at last he paid the rest wanting \$8; how much was the last payment?

DICTIONATION.

Second Reader, page 192, from "This was so amusing a sight" to "into the bargain." Pupils are to be told by Examiner where each sentence begins; capitals to be counted.

Harvest, luscious, autumn, golden, healthy, affection, remember, spectacles, feathers and future.

Slates are not to be used, but plenty of time can be given to the candidates to write it *once* carefully on paper.

READING.

Second Reader, page 171, from "Next morning" to "all obstacles."

WRITING (ON PAPER).

Second Reader, page 202, "Poison drops of care".... "ere they soil the lip."

Entrance to Fourth Class.

READING.

Third Book, page 261, from "One day" to "dead."

WRITING.

To be judged from Dictation Paper.

DICTIONATION.

To be written at once on paper and no copy made; capitals and periods to count.

Third Reader, page 224, from "The schooner" to "waves." His birth took place in a berth in a vessel. Bury the poor

brute and do not bruit about his faults. The teacher bade me beware of bad men.

The above is not to be written on slates.

GRAMMAR.

1. Define Noun, Interjection, Pronoun, Case, and Adjective.

2. Separate into noun part and verb part :
(a) Make no rash promises. (b) The lark has sung his carol in the sky. (c) Sweet be thy dreams !

(d) In childhood's hour I lingered near
The hallowed seat, with listening ear.

3. Tell the parts of speech in the following sentence :—

He wrapped her in his seaman's coat
Against the stinging blast.

4. Write the past tense of go, come, see, runs, takes, are, knows, lays, lie, sells, shines.

5. Correct the following :—Who will go after a pail of water? Her and me. Them are the books which we wanted. Ida and me were out.

6. Write the *possessive*, singular and plural, of the following nouns :—Cable, tutor, mercy, engineer, princess, ox, sheep, poetess, gardener and sculptor.

HISTORY.

1. Name the two great French discoverers of Canada.

2. Give the dates for the founding of Port Royal, Quebec, and Montreal.

3. How were Cartier's people afflicted during the winter of 1535? What happened at his departure from Stadacona in 1536?

4. Describe the siege of Quebec by Phipps, in 1690. What was Frontenac's conduct, and how was it recognized?

5. Name six of the French Governors of Canada, and write a short account of one of them.

6. What were the plans of the English for the campaign of 1759? What was arranged on the side of the French?

ARITHMETIC.

1. Express in figures ten millions, ten thousand and ten; express in words 13000-013; and in Roman notation 1882, 2004, 759, 10999.

2. How often must 807 be added to 119 to make ten thousand six hundred and ten?

3. Express 68932468 square inches in acres, roods, etc.

4. Simplify $\frac{1}{2}$ of $\frac{1}{3} \div \frac{1}{4}$ of $\frac{1}{5} + (\frac{1}{6} + \frac{1}{7}$ of 20).

5. Find the G. C. M. of 3013, 2231 and 2047.

6. Find the least number which divided by 6, by 8 and by 9, gives in every case the remainder 5.

7. Divide 480 apples in three heaps, the second heap containing three times as many as the first, and the third four times as many as the second.

8. A house and its furniture cost \$6909; the house is worth six times as much as the furniture. Find value of the house.

9. A man takes 990 steps in walking half a mile; his son takes 1440 in traversing the same distance. How much longer was the father's step than the son's?

10. $\frac{1}{4}$ of a field is planted with carrots, $\frac{1}{5}$ with turnips, and the remainder, 6 acres, with potatoes. Find how many acres are planted with turnips and carrots respectively.

LITERATURE.

Open Third Reader at page 74 and write the answers to the following questions on paper :—

1. What is a "stockade fort"? What are "renegade white men"?

2. Name any Indian wars. Give the names of any Indian Chiefs who took part in them, and explain the cause of these wars.

3. Explain the meaning of "a thousand rifles," "cornfields," "garrison," "pioneers," "capacity," and "rescue."

4. What is meant by "the heroism of a woman may baffle the address of a warrior"?

5. Write one hundred words on the subject of this lesson.

COMPOSITION.

1. Enlarge the following sentences by the addition of words or phrases :—(a) — years have passed away —. (b) Have you ever considered the wonderful structure —? (c) The ship set sail —. (d) The enemy began their attack —.

2. Construct several simple sentences on

each of the following topics:—(a) Sleep, (b) War, (c) Peace, (d) Falschood, (e) Poverty, (f) Honour, (g) Soldier, (h) Cottage, (i) Iron, (j) Mahogany.

3. Write a composition of not less than one hundred and fifty words on either of the following:—(a) The Oak; (b) New-Year's Day.

GEOGRAPHY.

1. (a) Define strait, cape, estuary, river and gulf. (b) Give states of the Union touching the great lakes.

2. Draw an outline map of the Dominion of Canada, giving Provinces and capitals of each, and locating principal rivers.

3. Name chief articles exported from Canada. To what countries sent? Also chief articles imported into Canada. From what countries do they come?

4. Name the principal islands in the great lakes and river St. Lawrence, locating each.

5. What and where are the following:—Mackenzie, Sable, Charles, Nelson, St. Peter, St. Johns, St. John, Scugog, Nation, and Kempenfeldt?

Entrance to Fifth Class.

WRITING.

Writing will be judged from Dictation Paper. Slates not to be used.

DICTATION.

Fourth Book, page 92, from "No river can exhibit" to "and their martyrdom."

Places of worship are named a church, chapel, grove, temple, synagogue, sanctuary, tabernacle, cathedral, and mosque.

Brilliancy, vacancy, flimsy, epilepsy, furzy, prevents, penitence, manœuvre, catastrophe, auspices.

READING.

Fourth Book, page 79. "If I slept then . . . the moment came."

COMPOSITION.

The Examiner will write the subjects on the blackboard. Candidates must choose one of the following subjects, and the composition must not be less than twenty-five lines in length:—(a) Value of time; (b) A journey by railway; (c) Never too late to learn.

GEOGRAPHY.

1. (a) Distinguish physical and political geography. (b) Define axis, planet, lunar eclipse, basin, tropics, and longitude.

2. Name the bodies of water into which the following rivers flow:—Thames, Alabama, Arno, Elbe, Douro, Negro, Parana, Iser, Ticino, Indus.

3. What influences affect the climate of a country?

4. Over what railroads would you pass in going (1) from Collingwood to Ottawa, (2) from Stratford to Hamilton? Name the railroads running into the city of Toronto.

5. State accurately what and where are Ivica, Sark, Leith, Valetta, Neagh, Taranto, Morea, Comorin, Hoogly, Carpentaria.

(6) Draw a map of great lakes, giving cities situated on each, with positions.

ARITHMETIC.

1. What will 7 loads of peas cost, each containing 50 bush. 50 lbs., at $62\frac{1}{2}$ cents per bushel?

2. Simplify $.035 \times .0045 \div .25$.

3. Add together $\frac{3}{4}$ of $\frac{1}{2}$ of 2 tons 4 cwt., $\frac{1}{2}$ of 3 quarters and $.29$ of 5 cwt. 2 qrs., and reduce the result to the decimal of 35 tons.

4. Define factors, quotient, measure, multiple, remainder, interest, ratio, and integer.

5. Find value of

$\left(\frac{\frac{1}{2} + \frac{1}{3}}{1\frac{1}{2}} - \frac{1}{2} + \frac{1}{2\frac{1}{2}} - \frac{\frac{1}{2}}{2\frac{1}{4}} + 7\right)$ of $\frac{\frac{1}{2} + \frac{1}{3}}{\frac{1}{2} + \frac{1}{4}}$ of \$210.

6. Write out the table of Avoirdupois weight. 144 lbs. Avoirdupois are equal to how many lbs. Troy?

7. A boy has a certain number of apples. He gave .33 to one boy, .3 of the remainder to another, and .428571 of the remainder to a third; he had 736 left. How many had he at first?

8. What number added to $\frac{3}{4} + \frac{1}{2}$ will give that number which, when subtracted from $3\frac{1}{2}$, leaves $1\frac{1}{2}$?

9. Find the largest number which will divide 34137 and 67638, leaving for remainder 201 and 102 respectively.

10. I bought goods on credit from a merchant to the amount of \$385.75 on January

15th. If he charges me seven per cent. per annum simple interest, and I pay the bill on August 23rd following, how much must I give him?

LITERATURE.

1. A formidable insurrection in Dalmatia and Pannonia had called Tiberius away from the Rhine and the Elbe to another field of warfare. In his place came Quintilius Varus, who allowed the poor Germans to be oppressed in every imaginable way, extorted money from them, etc.—*Fourth Reader, page 204.*

(a) Who were Hermann and Tiberius? (b) What brave deed was done by Hermann? (c) Explain the meaning of "field of warfare," "oppressed," "imaginable way," "extorted money."

2. A host of Roman princes were dragged to the altar of the Germans and sacrificed to Wodin... their heads were placed as trophies upon the surrounding trees... But the Germans reserved their most cruel tortures for the Roman advocates and other pettifoggers, etc.

(a) Where were the altars of the Germans usually placed? (b) What was Wodin? (c) In what word is this name retained? (d) Explain the meaning of "sacrificed," "trophies," "cruel tortures," "advocates and pettifoggers."

3. Give an account of the conquest of Mexico.

HISTORY.

1. Tell what you know about the reign of King Alfred.

2. Explain the following terms:—Colonies, Cabinet, Governor-General, Premier.

3. When was the Act of Settlement passed? What are its chief provisions?

4. In what reign were the Act of Supremacy and the Act of Conformity passed? What were the results of these Acts?

5. For what event is the year 1588 famous? Who prepared this expedition, what was its object, and by whom was he assisted?

6. Give a short account of what occurred in 1715 and 1815.

N.B.—"A Brief History of England," published by T. Nelson & Sons, of Edinburgh, will be found the best book for the *home work* of pupils in the subject of English History. It is amply sufficient for the Entrance Examination, and is highly recommended for *home use* by the Wellington Public School Inspectors.

GRAMMAR.

1. Analyze: "Cast thy eyes eastward," said he, "and tell me what thou seest?" "I see," said he, "a huge valley, and a prodigious tide of water rolling through it."

2. Parse: "In every quarter of Europe might be seen, on the walls of the towns, the signal of torches waved in tumultuous consternation."

3. How many genders are there, properly so called? What is the meaning of common gender?

4. What do much, few, a few, several, all, another, severally denote? Illustrate by example.

5. Write down (1) ten irregular verbs; (2) the defective verbs; (3) the auxiliary verbs that are also used as principal verbs.

6. Name all the parts of speech modified by adverbs. Give examples.

7. Correct errors in the following sentences, giving your reasons:—(a) I wonder who they have asked to the party. (b) Neither of them bear any sign of case at all. (c) I had wrote to him the day before. (d) Him expected all were lost.

CONTEMPORARY LITERATURE.

REPORT OF THE MINISTER OF EDUCATION OF ONTARIO for the years 1880 and 1881. Printed by order of the Legislative Assembly, by C. Blackett Robinson, Toronto.

(SECOND NOTICE).

WE have, in former years, had occasion to complain of the lack of useful information about our Normal Schools; and though in the Report before us the items referring to these schools are more numerous, there is still a "plentiful deal of nothing" amongst them. On page 71, for instance, we are given, with scrupulous minuteness, the names of those who form the staff in each institution, but not a word is said as to the salary each receives. Now, we venture to assert that a statement of the cost to the country of these institutions is a matter of far greater moment than a list of the names of those employed in them. After searching through the volume we at last light upon a table, on page 236, in which is given incidentally some of the information we want. From this we learn that our two Normal Schools cost, in 1880, the sum of \$36,694, making the cost for each certificate granted in that year \$89.50. On the next page, the cost for each certificate granted in 1881 is given as \$109. We will try now to place before our readers a statement of the cost of pupils in the various schools under the Department. To do this we must ascertain the cost per pupil in our High Schools. This, as usual, we have to reckon for ourselves. It is true, we have a statement on page 166 which gives the cost per pupil, *based on total receipts*, as \$33.48. The happy thought of reckoning average expenditure in this unique way could only have originated in the Department; for what household manager would estimate daily expenditure upon the income, and not upon the gross outlay? Mr. Crooks' method

of reckoning is like that of the registrar who would estimate the average number of deaths in a community by the gross number of births. Of course the cost given above is made still more misleading by being based upon the registered and not upon the average attendance. By using the figures in the comparative statement of High Schools, we are enabled to ascertain the cost of each High School pupil in average attendance; and we now lay before our readers the cost per pupil in the three kinds of schools mentioned below, for the year 1880:—

Cost per annum of each Public School pupil in average attendance	\$12 82
Cost per annum of each High School pupil in average attendance	57 00
Cost of each Normal School pupil who successfully passed the examinations	89 50

The last item is very much less than the cost per certificate in those Normal Schools of the United States of which statistics are given on page 236; but no proper comparison with these institutions can be made, because the length of time occupied by the students in each school in securing certificates is not stated. It is a significant fact that the Collegiate Institutes and High Schools have completely taken from the Normal Schools the training of First Class teachers, for in 1880 they trained twenty-four out of the thirty successful candidates for First Class certificates. It is like repeating a twice-told tale to say that there is widespread dissatisfaction with the working of our Normal Schools; and that there is reason for this few can doubt after reading the following extracts from the Report. Thus, on page 47, we are told that six Normal School students obtained First Class certificates, and twenty-four others, who were principally trained as we have indicated. That the work of the Normal Schools is not of the

highest order, few will deny ; and with regard to their general condition, let us see what Inspectors Buchan and Marling have to state. On page 87 we have their report of an official visit to the Toronto institution, in which they say :—"Considering the shortness of the session and other difficulties, the results seem to be as good as can be reasonably expected"—a neat way of damning with faint praise.

The Ottawa Normal School fares better at the hands of Messrs. Buchan and Glashan, but even their report is by no means enthusiastic. If any class of men in the country is able to form a correct opinion of the work done by the Normal Schools it is the Public School Inspectors. The teachers these institutions turn out come at once under the critical notice of these gentlemen in their inspectoral visits. Let us note their expression of opinion. On page 128 will be found the following resolution, passed at the meeting of the Inspectors' Section at the last Provincial Convention :—"That in the opinion of this section the professional training of First and Second Class teachers is quite defective ; and the attention of the Hon. the Minister of Education is hereby respectfully directed to the necessity of a thorough investigation into the character of the lectures delivered in the Normal Schools, and into the methods of teaching practised in the Model Schools." It is not unreasonable to expect that any new and improved methods of teaching and school management should originate, so far as the Province is concerned, in the Normal School. The teachers there should take the lead in the promulgation of everything that is new in education, so as to be in a position to either recommend or condemn it for the guidance of the young people with whose training they are entrusted.

To what extent they keep in the van of educational progress let the following resolution, passed in a full meeting of the Provincial Convention of 1881, testify. We quote from page 124 : "That a Committee of the Association be appointed to consider proposed improvements in the methods of

teaching and school management, for the purpose of submitting them to the Minister of Education, that they may be properly tested by experiment, under the direction of the Education Department, in case such proposed improvements commend themselves to the said Committee, and report to the Convention." It is not only inspectors and teachers who complain of these schools ; the students who attend them have made the strongest representations to Mr. Crooks in regard to mismanagement, of which they have been the victims. Among the new items is a statement of the number of hours per week each Normal School master gives to his work. In Ottawa, the Principal and Science Master each works eighteen hours per week. In Toronto, the Principal and Mathematical Master each gives twenty hours per week to their duties ; but we are surprised to see that the work of the Science Master takes only twelve hours. Surely Mr. Crooks has made some mistake here, for he would not be guilty of the extravagance of paying this gentleman several hundred dollars a year more than is paid to others of the same standing in both Toronto and Ottawa, for little more than half the amount of work per week. If Mr. Crooks' statement is correct, there should be, in all fairness, a levelling up of salaries, to make the payment to some extent commensurate with the amount of work done. We will venture further to suggest, that the spare time of the gentleman whose duties are so light, could be very usefully employed in supervising the teaching done in the Model School by the students, and the latter would then have the satisfaction of knowing that they were being overlooked by a man competent to form a just estimate of their capabilities as teachers—taking a broader view than is usually taken taken by the Model School teacher.

Another new feature of interest in this Report is a table giving statistics of the entrants to High Schools. From this we glean that in 1879 2,654 candidates passed the entrance examination, which was 54 per cent. of those who went up. In 1880 the number was 2,757, or 48 per cent. of the

total number of applicants. The town of Uxbridge shows the best result in entrants, since the whole number (twenty-four) who were examined in 1879 passed, and twenty-seven out of twenty-eight passed in 1880. Parkhill shows the worst result, passing only 20 per cent. or eleven out of fifty-four, in 1879, and 30 per cent. in 1880.

If all the money expended by the Government on education produced such good results as the \$3,275 paid to County Teachers' Associations in 1880, our educational affairs would be in a more prosperous condition than they are even at present. No part of Mr. Crooks' chequered administration has been productive of more good to Public School education than this subsidizing of local associations. Their frequent meetings for the discussion of matters connected with the business of teaching has called forth a hearty vitality in the teaching power of the country, which is showing itself in the improvement of both method and discipline in our schools. We have more than once urged upon Mr. Crooks the further step of appointing a competent person to assist in conducting the meetings of these Associations, and to be the medium of bringing new and improved methods before the notice of the teachers. Such a person might also do good work as an Inspector of Model Schools. The late Dr. Ryerson, before his retirement from the Education Office, contemplated the appointment of such an officer, and, indeed, had a provision inserted in the law with that object.

SCOTT'S MARMION; with Introduction and Notes by T. C. L. Armstrong, M.A., LL.B. Toronto: Canada Publishing Company, 1882.

MORE than any other of our English Classical Poets, Scott requires the aid of copious notes, so as to make clear the constantly recurring allusions to history and local folk-lore, traditions and scenery; and in none of Scott's poems is this more apparent than in the case of the beautiful *chef d'œuvre* so happily selected as the subject for the forthcoming Intermediate Examination of

the Education Department. A poem like the "Paradise Lost," or one of Shakespeare's dramas, an idyl like the "Deserted Village," explains itself, and is best without other comment than that supplied as occasion requires by an intelligent teacher. But in a poem like "Marmion," it is impossible to follow the spirit of the verse without at every step understanding the historical and local allusions. These are matters which the student ought to search out for himself, his history and geography in hand, with the aid of elucidatory annotation. His teacher will supply, what no notes can give adequately, the appreciation of the poetical form and matter. Mr. Armstrong seems to our judgment to have been singularly successful in meeting this requirement. His notes are full, pertinent, and just sufficiently copious to guide the student who is willing to take the trouble of thoroughly working out the subject, without rendering superfluous the healthy exercise of individual effort.

Not the least useful part of Mr. Armstrong's work is contained in the Preface, which those who propose to themselves the calling of teacher, would do well to read again and again. Mr. Armstrong says that in studying an English Classic in schools three points are to be considered: First, as we understand him, a thorough knowledge of the work itself, that is of the story, the *dramatis personæ*, the local and historical surroundings, the various allusions and side scenes; and these are well and we may fairly say, exhaustively, treated in Mr. Armstrong's notes; the Second category will include "a knowledge of the principles of rhetoric and literary criticism," and the proper estimation of literary merit; while the Third will rise to a general view of the conditions of correct art.

The first of these, as we have said, Mr. Armstrong has sufficiently provided for in his notes to "Marmion;" the two latter must of course be left in large measure to the student's own power of appreciating and assimilating poetry, aided by the guiding judgment of his teacher. But Mr. Armstrong has given an important aid in his essay on

"Scott and his Period," justly considering that to form a proper estimate of a great writer, we must take into account his literary environment. A sufficient account of Scott's contemporaries is put before the student, although we may not agree with Mr. Armstrong's *ex cathedra* statements, as for instance, when at page 7 he tells us that "Thomas Moore is scarcely a natural poet," whatever that may mean, and that he "resembles the previous age (*sic*) in his flash and glitter." Lord Byron in his inimitable letters values one of the Irish Melodies as "worth an epic." Does any language contain a lyric more perfect than "The Last Rose of Summer"?

In his brief abstract of the life of Scott, Mr. Armstrong has mainly relied on quotations from the biography by Hutton in the "English Men of Letters" series. Now, we submit, that Canadian writers, even in editing a School Manual, ought to aim at something more ambitious than a mere compilation of what others have written; though when, as in Mr. Armstrong's case, this is done honourably, with full acknowledgment of the debt, it is a very different thing from the clumsy piracies we have had occasion hitherto to notice on the part of a certain book-making ring in connection with our Provincial Educational System. Mr. Armstrong's edition of "Marmion" is a very useful one for its purpose, and is evidently the work of a thoroughly practical teacher, even though the literary form might be improved, and national Canadian ambition might suggest a bolder effort at original criticism.

CHEMISTRY FOR INTERMEDIATES: consisting of a series of Concise Definitions, Short Notes, and Chemical Problems, adapted for the preparation of Candidates for the Intermediate and Second Class Teachers' Examinations. By A. P. Knight, M.A., Kingston Collegiate Institute. Toronto: Copp, Clark & Co.

THE title is admirably descriptive of the contents of this handy volume. To the teacher who possesses apparatus, and can

teach his subject as an experimental science should be taught, Mr. Knight's labours will prove a valuable educational auxiliary; but to the "crammer" we fear the work will be of little service. It is true, as Mr. Knight observes in his preface, that many of our text-books contain too much; he might have added that the prescribed text-book on Chemistry (Roscoe's Primer) contains too little. We think, however, that in his desire to reduce the amount of text-book matter, the author may have in some of the details gone a little too far. A matter in connection with the subject of chemistry, which is very easily forgotten by students, is the correct mode of procedure in the preparation of the different elements and compounds. The volume before us, in accordance, we admit, with its plan, refers only briefly to this, the supposition being that the student will supply this defect from his observation of the experimenter's manipulations. For reasons that will suggest themselves, we believe that no manual on Chemistry should omit a matter of so much importance. But, of course, it may be written down as a note by the student, and thus become another means of training his powers of perception. The mode in which the PROPERTIES and TESTS are taken up commends itself to our judgment; but the EXPERIMENTS, like the PREPARATION, might well have been dealt with more fully. Were all our schools in the condition in which they should be, so far as Science teaching is concerned, we should have no objection to offer; but we have every reason to believe that in most of the High Schools and Institutes many of the experiments, to which Mr. Knight merely refers by name, cannot be performed even in the rudest fashion.

An admirable feature of the volume is the large, varied, and well-assorted series of problems, on the value of which as a means of teaching Mr. Knight quotes the authority of Professor Roscoe. Here again, however, what is really scientifically correct does not suit the conditions of our Examinations. Almost all of Mr. Knight's volumes are expressed in litres, and his weights in grains;

whereas the scientific geniuses that get off chemical conundrums every July, in their wisdom, prefer grains and cubic inches. But this is a minor matter so far as the value of the problems is concerned. It might have been better, too, had the answers been withheld from the pupil—not, however, that we recommend to Mr. Knight the example of some of our eminent mathematicians. The definitions are excellent, and in all respects the book, so far as it goes, is up to date. We fortunately are not treated to a rehash

of exploded doctrines. The treatment of the subject is lucid, and the arrangement of the details reflects credit on the author's mental training. Our only regret is that scientific instruction in Ontario is at so low an ebb that this "Chemistry for Intermediates" may not meet with the reception which for many reasons it richly deserves. The instincts of the true teacher have made the author forget that in this age of "cram" only that book will sell which makes matters easy for both master and pupil.

THE REPRESENTATION OF "ANTIGONE" AT TORONTO UNIVERSITY.

ON the whole, the experiment of reviving a Greek tragedy may be said to have been successful. The drama proceeded from beginning to end without a hitch; the declamation was distinct and correct; the costumes were unexceptionable; the music, composed by Mendelssohn for a German version of "Antigone," was of a very high degree of excellence, furnishing a source of pleasure unknown to the ancient Greek theatre, where the singing and instrumentation seem to have been of a much simpler kind. The two performances were attended by a most appreciative audience, crowding every available place in the University Convocation Hall. The curtain rose on the first scene, a portico before the palace of Kreon, King of Thebes; in the centre stood a tripod wreathed with flowers; steps led up to the palace door, a gateway shaped like the archaic gate of the Treasury at Nycenæ. The heroine, Antigone, is conversing with her sister, Ismene. Professor Maurice Hutton represents Antigone somewhat, it must be said, at a disadvantage, from being too near the audience; and the illusion of paint and wig is not as perfect as it would have been had the performance taken place on the stage of the Opera House. In this scene, Antigone declares her settled purpose of burying her brother in defiance of King Kreon, who had forbidden this act of sepulture under pain of

death. Sepulture, it will be remembered, was effected simply by throwing a handful of earth three times on the corpse, a curious survival of which is found in the Church of England burial service. Ismene, less strong-minded than her sister, remonstrates, but in vain. Antigone has the courage of her opinions, and, like some others of her sex in more recent times, is determined to have her own way. The sisters leave the stage, and the Chorus, in two divisions, appears: a number of venerable Theban elders dressed in white robes of flowing drapery, more or less decorated with embroidery. They march to the anapestic measure of a choral ode of triumph for the late victory of the Thebans. The chorus in the Greek drama is always in the Doric dialect, and, as being of Spartan origin, always opens with the anapestic rhythm, which was that of the primitive Spartan war song. The music of this chorus was exceedingly good; it did not disguise or distort the beautiful Greek words. It is now more years than we like to count since we made a special study of the Greek of this drama for an Honour Examination at Trinity, Dublin, and each well-remembered passage came back with much effect, sung with such admirable precision and musical *verve*. As was orthodox, each "learned Theban" carried a "thyrsus" or wand wreathed with ivy, and tipped with a fir cone; each had

also a venerable beard of white tow. But for their bare legs and sandals the chorus might have been taken for a posse of ritualistic parsons with embroidered surplices. Our readers will recollect that in the ancient Greek theatre the chorus took position in the "orchestra," or dancing space, which occupied nearly the whole of what in modern theatres is the pit. The effect of the really good singing of the chorus was much marred by the performance not being permitted by the President of the University to take place at a regular theatre, where, at least, the stage would have been large enough to allow the chorus room to march about with dignity and effect. As it was, when not occupying the stage by themselves during the performance of one of the choral odes which mark out the scenes or acts of the play, the chorus had to withdraw to the small platform, almost among the audience, where the venerable Thebans in their white wigs and bare legs looked not a little incongruous beside so many fine ladies and gentlemen of modern life. It was a pity, too, for the English-speaking portion of the audience, that the libretto procurable in the Convocation Hall was the English version by Professor Campbell, of Glasgow, who translates the dialogue for the most part with admirable fidelity, but who makes no attempt to reproduce in the choral odes anything that recalls the rhythm of the original. Far better in this respect is the little-known version by Dr. Donaldson: for instance, in this first chorus, in the fine passage where the hostile army is compared to an eagle, the rhythm of the anapestic dimeter is preserved. We quote a few lines of it from memory:—

"When as an eagle terribly screaming,
With a soaring swoop he alighted,
White as the snow were the pinions that
bound him,
And dazzling the gleam of his armour."

The ode sung, and the chorus withdrawing to their perches outside the stage, the central gate opens and King Kreon comes forward, attended by two soldiers, armed apparently for spearing the suckers which are now crowding the classic Don and the Humber. Kreon is dressed in a most graceful and classical-looking red vestment. Mr. Douglas Armour gave an admirable rendering of the part, which is that of a stage tyrant, who, in addition to other cruelty, makes unmercifully long speeches. The watchman then enters to announce that some one has buried the deceased traitor. The watchman wears what we are assured is the counterpart of an ancient Greek helmet: it is to us suggestive of the modern fireman. The watchman was

probably intended by Sophocles as a comic part—a caricature of the garrulity and affectation of philosophic language of the Athenian cad. The comic effect was very well given, being made more ludicrous by what would have sounded strange to an ancient Athenian audience—a strong Irish brogue. Then the stage was cleared for the chorus, who sing the ode beginning—

"Many things are subtle,
And nothing is more subtle than man."

Then follows the most striking scene in the drama, in which Antigone avows her deed, and in defiance of Kreon, who pronounces on her the doom of death by starvation, asserts her loyalty to a higher law—the eternal sanction of Duty.

Mr. Armour's characterization of Kreon was a really good piece of acting all through the play, and especially in this scene and in the next, where Hamon, Kreon's son, comes to intercede for Antigone. Then followed the charming ode, "Love in Fight Invincible," admirably sung and well interpreted by the music. Then a scene where Antigone, like Jephtha's daughter, bewails her virgin life about to end, in a lyrical dialogue with the chorus, of great beauty. In the next scene, the terrible blind prophet, Teiresias, appears in his snow-white "imation" or mantle. By his threats Kreon is frightened into ordering the release of Antigone, and the chorus, once more having the stage to themselves, dance round the tripod, which holds a blazing fire; into it they throw incense, to the great danger of their white robes catching fire. Then comes the *denouement*: the suicide of Antigone, followed by that of Kreon's wife and son, whose bodies, exposed on the stage, make a not ineffective tableau. The curtain falls amid loud, long-sustained, and, we think, well-deserved applause. The least satisfactory part we hold to have been that of Antigone and Ismene. Not that Antigone did not declaim her speeches with perfectly clear articulation, but it is not derogatory to Professor Hutton to say that he did not look quite the type of young lady who should embody the ideal of a stately Greek princess, "a daughter of the gods, divinely tall, and most divinely fair." Antigone should be, above all things, dignified, sad, and sustained by a lofty pride. But this Antigone was Amazonian, and too massive about the ankles, and her muscular arm would have enabled her to make a clear sweep of the *dramatis persone*, including the watchman in his fireman's helmet, and the old gentlemen in the tow wigs.

Taken all in all, however, the representation was a success, and brings credit to the

University, to Professor Hutton in particular, to his fellow-Professors Pike and Ramsay Wright, and to the actors, chorus, and musicians who took part in the play. The large sum it has cost cannot be regarded as wasted, for every student of the classics who has witnessed it has received a living lesson in classical art of a kind which it is impossible to realize from books or lectures. We much regret that an additional representation was not given, say on the Saturday of Easter week, and every High School Classical Master in the Province enabled to attend, at the expense of the Education Department.

As we have said, the chief drawback to the success of the "Antigone" was caused by its being presented in a building in all respects unfitted for the purpose. This was the result, we are informed, of scruples which, while content to permit a theatrical exhibition, refused to allow its being given in the only proper place—a regular theatre. This nice distinction may, we fear, in the eyes of some, savour of that pietism which strains at a gnat. But we are forced to note, with very grave censure, the terrible risk to human life caused by this representation

being given in a building without any means of egress except a very small door at the distant end of a long and narrow hall. The audience, representing the highest culture of Toronto, was so densely packed that when the play was over it took half an hour of slow and difficult extrication to clear the room. Had fire broken out; had the white dresses of the chorus caught the blaze from the tripod, as they danced round it; had a panic seized the audience, what frightful results would have followed! The floor and the stage were a mass of fresh lumber, honey-combed with gas pipes; it would have kindled in a moment. The windows were out of reach. That a horrible holocaust did not result is in no degree due to the wisdom that chose such a place for a dramatic representation, which should never have been held there, both for artistic reasons and from a rational regard to the risk of so many valuable lives. We have reason to thank Providence, and not the *University authorities*, that this most commendable effort to illustrate classical art has passed off successfully, pleasantly, and above all, safely.

C. P. M.

EDITORIAL NOTES.

THE NEW SCHOOL READERS.

"QUID RIDES?"—Not because a certain firm of Toronto publishers, consumed by the ever-gnawing fire of ambition, has given a new series of School Readers to the cause of education in Ontario, do we laugh, but that the enterprising firm when it had accomplished its high mission of producing them had not thought it worth its while to make the books fulfil the purpose for which they were manufactured. It is no discredit to the house in question that it has published these outwardly beautiful books, but it is a matter of regret that having produced them it didn't at once consign them to the limbo of abortive enterprises. It is true that their appearing, like a new circus, was grandly heralded, and that the press, carried away by momentary enthusiasm, gave them "a good send-off." A few of the profession, too, lost their heads over them, and a School Board out west

made haste to "take them in." But this flow of favour was the not-unexpected result of "the first look" at a new thing. Like the child with a toy, the first hour was rapture; but soon on went the "thinking-cap," and reason returned with the spectacles.

The disesteem in which our criticism is held by Messrs. Gage & Co. will no doubt prevent them from profiting by anything we may say of their Reading Books, but we assure the firm that we would have been honestly glad if we could have truthfully commended them. There was need for a new series of School Readers, and the mechanical facilities for good book-making have been advantageous to their production. The requisites were "brains," competent professional skill, good literary workmanship, and an active Canadian sentiment. A critical examination of the series will scarcely warrant one in saying that these requisites,

in the result before us, are very apparent. The books have a presentable mechanical appearance, and in this respect are, undoubtedly, much in advance of the present Readers. But they have serious defects, which, wherever they have been critically examined, have readily shown themselves. Notably, the books are of too low a grade for use in Canadian schools, and their contents are meagre and for the most part unsuitable. The latter defect is a grave one, but it is explained by the fact that the series is an Old Country one. We know that the most astonishing things are done when the design is to do something remarkable, and we have thrilling effects when the thing is done in a hurry. This is abundantly manifest in the present achievement of Messrs. Gage & Co. But, as some one has said, there is nothing more terrible than activity without intelligence. Hearing, no doubt, of the intention of another house to prepare a new series of Reading Books, the *School Journal* firm set to work to forestall it. There was obviously no time, even if there was the special talent at command, to produce an original series. Resort was therefore had to an existing one. Unhappily, the firm lit upon a Scotch series (Chambers's), and made haste to adapt it. The result is a hybrid series—a heterogeneous compound of the oddest ingredients. The books are styled "English Readers," for the reason, we suppose, that though of Scotch origin, they are got up for the "Cockney" market. Their meridian is clearly that of Greenwich, or the neighbourhood of the London "Zoo," and they seem wholly constructed for use in that latitude. It is true there is an infiltration of Canadian matter, but it is of "crude oil," and wants refining. To change the figure, the native mass is badly fused, and appears like a bit of disrupted trap rock in a field of Devonian chalk. It appears in ridges as if thrust out of the cavernous interior by the effects of forces either actively repugnant to it or with which it could not be made to assimilate. To make room for this material the original mass has been subjected to the action of strong explosives to dislodge matter to allow

of the carting in of the new deposits. The violence of the wrenching effort to displace the original material is everywhere apparent, as if some clumsy catastrophic action had been at work, or that the publishers had made use of literary dynamite to expedite the labour of adaptation. The consequence is an utter sacrifice of the graces of literary proportion, a painful display of "ragged-edge" work, and an intrusion of a rubble of matter which is neither honest boulders nor shapely broken stone. In this respect the series maintains the stylistic traditions of the house that issues it. There are passages all through the books which, if they contain grammar, contain it in the form of a solution not yet precipitated. The work, so far as the adaptation goes, would seem to have been done by men who in moments of confidence might be heard to say "Them books," and "I done it." The facts of Canadian geography and history are similarly muddled. We are told, for instance (page 350 of the Fourth Book), that New Westminster is the capital of British Columbia, and (page 372) that the Indians of Manitoba, representing the *different tribes of Half-breeds, Icelanders, French, English, Irish, Scotch, and Mexicans*, jostle one another in the streets of Winnipeg! On the same page, we learn that the *stone* with which the brick buildings of Winnipeg are faced, *contains all the modern improvements!* The statement is made that *we* have no mountains which are 5,000 feet high! and the pupil is enlightened by the explanation that the pyramids cover as much ground as Lincoln's Inn Fields. Brock's Monument would seem to be on the St. Lawrence. The natural history, too, of this continent, we are bound to say, will be unrecognizable in Canada. Throughout the books reference is repeatedly made to "our own country," and "this part of the world," the animal life of which "runs not on all-fours" with the statements made about it in the Readers. On page 36 of the Third Book the information is given that "At one time, indeed not very many hundreds of years ago, wolves and bears were

quite common in our own country;" and that "the swiftest dog we have is the grey-hound, which is used for pursuing and killing hares." On page 66 we are told "we chiefly keep goats from an idea that it is good for horses to keep company with goats," and that the latter "are able to foretell bad weather!" The difference between the goat and his near relative the sheep is thus playfully pointed out, viz.: that the former "has longer legs and a much shorter temper." The definition (page 101), of "Obstinate" is "self-willed, and determined not to listen to reason." This is given in elucidation of the characteristic of the donkey, which is said to be "stunted in its growth and obstinate in its temper." The only difference between the hen and the duck, considered worthy of mention in the Readers, is on page 84, thus stated, that the legs of the former are set more in the middle of its body than in the latter—a description which *Grip* might in vain rival. In Book II., page 10, this further fact in natural history is cited: "Birds have only two legs, but then they have also two wings, which more than make up!" Of the squirrel we are told that "his colour is reddish brown; but in a very cold winter his fur turns gray!" Of beavers, Book IV., page 17, repeats the erroneous statement that they use their tails as a mason uses his trowel. It is also said that a colony of them will consist of two or three hundred—an evident exaggeration. The English terrier, on page 57, is said to be "smooth and white," though we have always supposed his colour to be "black and tan." Leather, the Second Book limits to "the skin or hide of an ox or sheep, which has been steeped in water and lime, and pieces of the bark of a tree." Steeped in pieces of the bark of a tree! On page 18 we learn that "Beef is the flesh of the ox, which is roasted or boiled. Pork, bacon, or ham, is the flesh of the pig, which is usually salted." This is a sinister reflection on boarding-house hash, and on that toothsome dish—Roast-pork—of Charles Lamb. Potatoes are the roots of a plant which was brought to this coun-

try more than two hundred years ago from South America! Treacle "is the juice which is left over, after the sugar is made!" Palm-oil (page 43 of the Third Book), it is affirmed, "is used in this country to make soap," and in the same lesson the extraordinary fact is narrated of a man eating up a tree. But we cannot take up more space at present with extracts from these diverting volumes. They will furnish a fund of amusement to any teacher who wishes to give his boys something to laugh at. But it is as lamps of style that they shine with especial brilliance. In this respect these *livres de luxe* are unique; and the frequency with which inaccurate statements and composition which would do credit to *Opera Bouffe* are met with, are, we presume, only to be explained by the too common tendency of the time to slipshod writing. Certainly, if they are to be authorized by the Department, they will have to be re-written, and that we trust by competent teachers. The notes, questions, etc., appended to the lessons should, moreover, be pruned, and the references to the text verified. We hear that a well-known journalist is about to take them in hand. We would suggest to him drastic measures, and the free use of the scalpel. But it is said that the *School Journal* is also to be put into his hands to edit. That is a task in itself, and, assuming it, we trust that he won't find himself in the position of the old bachelor who was asked to hold an animate bundle while its female depositor stepped round the corner. Meantime, it will be assuring to the friends of education to know that the "Royal Canadian Readers," to be issued at an early day by the Canada Publishing Co., and the adaptation, by Messrs. James Campbell & Son, of Nelson's "Royal Readers," are both well under way, and may with confidence be looked to as Reading Books of high, we might almost say unusual, excellence, and possessing the merit not only of being thoroughly adapted for use in Canadian schools, but of a character that will do credit to Canadian scholarship and native literary workmanship.

ERRORS IN THE USE OF ENGLISH.

SOME one has said that "the reward of a good sentence is to have written it." The remark reminds one how little of good writing one meets with, as a rule, in the Canadian press. We have often vigorous thought, and what is called "trenchant writing," in our public prints; but it is sadly lacking in logical precision and in the power of making a clear and symmetrical statement, which is the charm of many modern English writers, particularly among the scientists. But the great deficiency in our journalists and writers for the press, and an especial defect, we fear, in not a few of those who teach English composition in our schools, is the lack of style and that evidence of culture which should be more manifest in our public guides and teachers. The authors of our school manuals would seem to be not the least sinners in this respect; and the Educational blue-books present, in the Inspectors' reports, and even in the Minister's memoranda, English as atrocious as could well be written. In our newspapers there is also constant and wholesale evidence of careless writing; and even in the great dailies an utter absence of the literary art, for which, no doubt, our party politics is to blame. The remedy, so far as teachers are concerned, is in part hit upon by Mr. Strang, of Goderich, in the excellent papers published in our issues for the past and the present month, and in the work, now currently under the charge of Mr. Seath, of St. Catharines—the English section of the University Department of THE MONTHLY. Together with the perusal of these papers, the literary student in this profession should not fail to make a close, daily study of the best English authors, and to devote some portion of his reading to the English critical journals and the more notable of the modern Reviews. The increased attention in future to be given to the study of English in the schools, and the critical analyses of choice productions in English literature for University and the "Intermediate" work, will no doubt show important results in coming years. The scholarly compend of

Canadian, American, and English literature, now preparing for the new series of Readers to be issued by the Canada Publishing Co., we may here make the statement, will prove a timely aid to the critical study of English; and from what we have seen of the work, we are free to say that Canadian Bureaux of Education will be fortunate in having so admirable a native text-book to place in the schools. Meantime, as we have said, Mr. Strang's emptying of his collected Scrap-book of "bad English" from Canadian sources, is a service of the highest value to our teachers of English, and his examples of incorrect writing must prove of great use as exercises to the scholars. We can somewhat supplement the service Mr. Strang has done the profession by calling attention, which we most heartily do, to a volume recently issued by an Edinburgh publisher, and which contains a very mine of "Errors in the Use of English," collected over a period of thirty years, by the late Dr. W. B. Hodgson, Fellow of the College of Preceptors and recently Professor of Political Economy in the University of Edinburgh. This work, we say with all deliberation, should be in the hands of every teacher of English in the country, and form a text-book in the school as an aid to correctness in English composition by one of the best means of securing this, viz.: in furnishing thousands of instances of inelegant or faulty writing. The work is divided into four sections, as follows: (1.) Vocabulary; (2.) Accidence; (3.) Syntax; and (4.) Rhetoric. Under the first head are grouped, in alphabetical order, spurious words, and words used with meanings other than their own; Section 2 deals with the parts of speech (viewed in relation to the sentence) and with inflection; Section 3 is devoted to errors in the construction of sentences, violation of the rules of syntax; and Section 4 cites instances of incoherent, ambiguous, and inelegant writing,—examples of the most amusing and yet instructive character, which must make the book a *vade mecum* to every student of English. The book, it may be added, is founded on actual blunders, and the source of every quotation

is supplied by the compiler. We hope, by permission of the publisher, to make considerable use of the work in subsequent numbers of THE MONTHLY. But, as its cost is not much over a dollar, it should be in the possession, at the least, of every English teacher.

LONGFELLOW, DARWIN, AND
EMERSON.

THE world is never prepared to lose its great men. The blotting out by death of illustrious names is always a shock to it. Since our last issue the Reaper has lain low, first Longfellow, then Darwin, and now Emerson. Their lights have gone out, and literature mourns. However variedly their work may be estimated, each leaves a vacant place in the field where he has laboured. Longfellow's death, to the masses, will most deeply be felt, and Song's requiem will find an echo in many a heart, in that he has gone. Darwin, to those who can sift his own great work, modestly and reverently advanced, from that which his followers have unwisely based upon it, will also be missed; while what was good and true in Emerson will excite regret that he is now no more. The work of each is done, the good and evil sifted, and they have now the reward appointed to them. Here is the lesson:—

"Lives of great men all remind us
We can make our lives sublime,
And departing leave behind us
Footprints on the sands of time."

QUEEN'S UNIVERSITY CONVO-
CATION.

THE proceedings at the close of the session of Queen's University, Kingston, have this year been of more than usual interest. Indeed, Convocation at Queen's is each year becoming of more and more importance, as the University, under its able and enthusiastic Principal, grows up to more active and lusty life. We congratulate the Faculty, the Trustees, and Members of Council on the results of the year's labours, and on the bright future which lies before this vigorous institution in its great academic work. We note with special satisfaction the singularly happy choice of the men upon whom, at this Convocation, it has conferred its honorary degrees. The degree of "D.D." has been bestowed upon the Rev. J. P. Sheraton,

Principal of the Protestant Episcopal Divinity School, Toronto, and that of "LL.D." on Prof. George Paxton Young, of Toronto University. Both gentlemen are worthy of the compliment paid them by the Senate of Queen's, and they honour the University in accepting the compliment. Principal Sheraton's work in connection with the Episcopal Divinity School and its organ, the *Evangelical Churchman*, is widely known and highly appreciated. He is one of Canada's most active and earnest labourers in the cause of evangelical truth, an able writer, an accomplished scholar, and a liberal-minded, Christian gentleman. Professor Young needs no word of ours to endorse his honours. To our readers his worth and work are known and valued, and education has no abler or warmer friend. As a teacher and thinker his place is in the first rank of Canadian scholars, and no man in Toronto University has exercised a higher or more beneficent influence than he. His services on the Advisory Board of Education have been simply incalculable, and education in Ontario has had an impulse from his work which it has been given to few men to exercise. We heartily congratulate Doctors Young and Sheraton on their well-deserved honours.

SKEAT'S ETYMOLOGICAL DIC-
TIONARY.

THE teaching profession of Canada will, we are sure, be glad to learn that the proprietors of THE CANADA EDUCATIONAL MONTHLY have arranged with the eminent English publishers, Messrs. Macmillan & Co., to have a cheap complete edition of the Rev. Professor Skeat's great Etymological Dictionary, the final instalment of which is just about to appear from the Clarendon Press. The author, as most of our readers will know, is Professor of Anglo-Saxon in the University of Cambridge, England, and is one of the first of living English scholars. His labours on this etymological lexicon of the language, arranged on an historical basis, have won for his work the highest place in English lexicographic literature; and we have no doubt that the enterprise which places a popular Canadian edition of this great work within the reach of every teacher will be appreciated, and the book itself largely subscribed for. The work will comprise some 700 pages, small quarto, and will be offered in cloth binding at \$3—one-fourth of the price of the English edition. Subscriptions may be sent to the office of THE MONTHLY during May, at the expiry of which the work will be ready.