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GAGE'S SCHOOL EXAMINER

AND

MONTHLY REVIEW.

JANUARY, 1881.

OUR PROGRAMME.

GAGE'S SCHOOL EXAMINER AND MONTHLY REVIEW will be published on the 15th of each month. It is issued at the solicitation of many eminent Teachers of our High and Public Schools, and is designed to supply a much felt want in our educational system. The following will be the more important characteristics.

I. It will aim at supplying at a much cheaper rate than any existing serial in the Dominion or the States, a criticism of current literature, art and philosophy. These subjects will be treated from the Teacher's point of view, by well-known and practical writers. The lighter aspects of literature will not be neglected, and a story illustrating some of the phases of Canadian school life, will be written expressly for this Review by an experienced writer of serial tales.

A series of popular articles on the History of Philosophy will endeavour to give an intelligible and interesting survey of the history of thought, which in books like "Schwegler's History of Philosophy" is couched in such technical language as to be practically useless to the ordinary student. Essays will also be furnished on literature, English, French and Classical, with special reference to preparation for the Examinations.

II. It will contain Examination Papers on all the subjects taught in our High Schools, and the higher classes of our Public Schools. These papers will be prepared by Educationists eminent in their respective departments, and will, it is hoped, be helpful to our already over-taxed Teachers. The publishers will gladly make arrangements with Teachers to issue these papers in sets.

at a cheap rate, so that they may be used for the ordinary monthly examination, thus saving much time and the confusion necessarily involved in dictating questions.

III. Solutions will be given to all the mathematical problems of the preceding month. The questions proposed or suggested in literature, grammar, chemistry, etc., will be discussed in the issue of the following month. Teachers and Students are respectfully requested to send in solutions and discuss the difficulties in grammar and literature. These will be duly acknowledged each month.

IV. The discussion of important points in the different departments of elementary mathematics, English grammar, literature, and science, will form an important feature. Teachers are invited to send in their comments on the essays on literature, art and philosophy. In order to make them available as a means of self-education, it is intended to add a few questions on each.

It is most important that our readers should distinctly understand that GAGE'S SCHOOL EXAMINER AND MONTHLY REVIEW deals with an entirely distinct and separate department from that belonging to the *Canada School Journal*. That paper being as it is, the accredited organ of the Teaching Profession, has quite enough to do within its own special province, even although the publishers have enlarged the number of pages to the utmost limit possible, the space is only sufficient for the record of Teachers' Associations, School Notes and other most important professional matter. For the adequate supply of examination papers, as well as literary and philosophical criticism such a serial as the SCHOOL EXAMINER is urgently needed. No expense and no effort will be spared by its Publishers to make it a live, vigorous and bright serial, at less than half the cost of any existing one. The poetry, bric-a-brac, etc. will be original, and will form an important feature in GAGE'S MONTHLY REVIEW, in whose pages nothing will be inserted as mere "padding." Reviews will be given of all important works connected with Education. Canadian Literature will receive prompt and appreciative attention.

ENGLISH CLASSICS FOR THE INTERMEDIATE EXAMINATION.

(Original Essays for Gaye's School Examiner.)

No. 1.—WALTER SCOTT.

In order to appreciate the portions of Scott's poetry set apart for our consideration, it is desirable to make acquaintance as fully as possible with the man of whose marvellously gifted and many-sided nature the poem in its vivid picturesqueness of character-drawing and landscape-colouring is the outcome. Nearly everything in Scott's writings we are able to trace to its source as seen in his biographies, an advantage which the student meets with in the case of few other great authors.

For the study of Walter Scott we possess three classical treatises, each by a noteworthy writer, the fullest and most elaborate being the large work by Scott's son-in-law, Lockhart; then one of the most charming in Morley's series of *bijou* biographies of English men of letters, by Richard N. Hutton; and Thomas Carlyle's essay. The last, like everything written by the illustrious thinker, of whom we are now on the eve of losing everything that can die, is well worth reading for its own sake, for the piquant force and peculiar vein of humour, but as a means of acquiring light, either about Scott or his writings, we hold its value to be *nil*. Criticism was not Carlyle's strong point. Witness his advice to students of poetic art, "Close thy Byron, open thy Goethe." Witness also, in the essay on Scott, his depreciation of such a living and breathing, albeit fantastic, type of feminine character as *Fenella*, in favour of the *Mignon* of that most unreadable book, *Wilhelm Meister*. In his "Scott" Carlyle makes little of the metrical romances and of the Waverly Novels because neither were written with a "purpose;" as if art had any business with "purpose."

Mr. Hutton's book, far more than Lockhart's, we recommend to the student; it does not contain nearly as much of the rough material of biography—letters, details, personal anecdotes—but is charmingly written, in the true critical and appreciative spirit, and with a genuine love for the pre-eminently lovable character of Scott. It may be useful to point to several matters which we consider worthy of special note in reading Mr. Hutton's chapters.

The first point we direct attention to is the strong degree to which the law of heredity as now recognized by science is illustrated in the case of Scott. Mr. Hutton tells well the capital story about Scott's moss-trooping ancestor, when on one of his freebooting raids, being captured by a feudal foe, and being given his choice of being hanged or of marrying the plainest of his host's three daughters, the large-mouthed or muckle-mouthed Meg, whose peculiarity in this respect the poet reproduced, a marked feature in his face being the long upper lip and large mouth, which, according to Mr. Hutton, were tokens of mental power. The character of less remote ancestors, and especially of his father and mother, is distinctly to be traced in Walter Scott. A second point, well illustrated in Mr. Hutton's earlier chapters, is the truth that creative genius really means the power of mental appreciation and reproduction. Scott possessed a memory with the power of retaining only what his mind could assimilate with pleasure. "Such a memory," Mr. Hutton

truly says, "when it belongs to a man of genius is really a sieve of a most valuable kind. It sifts away what is foreign and alien to his genius, and assimilates what is suited to it." Mr. Hutton's first chapter shows that Scott's "education" in the common use of the term, began earlier than usual, perhaps, as in another case of infant precocity, that of Swift, earlier than was at all good for him. But apart from formal studies, we trace in this period of Scott's life his intense love for family histories and folk-lore, his passionate sensibility to the sights and sounds of nature. Both these tastes were carried on and matured in his after life, but never with greater intensity of assimilation than in early years. Mr. Hutton quotes with approval Ruskin's remark as to Scott's vivid use of *color*. In "Modern Painters" the great art-critic gives repeated instances of this faculty in Scott—he does not, like Wordsworth, set himself of *malice prepense* to descriptive writing; it comes to him naturally in a few brief touches of color, like that in "Marmion," not noticed, we believe, by Ruskin, when the flush on the face of the doomed Constance is likened to the peculiar angry redness reflected on one of the bare Scottish hill-tops as a precursor of storm.

"The color came upon her cheek,
A hectic and a fluttered streak,
Like that which tints the Cheviot peak,
From autumn's stormy sky."

We call attention to instances of this keen appreciation of color as an element in the beauty of scenery, in the "Lady of the Lake," Canto V. stanza x. line 27, when the sun

. . . "All unreflected shone
On bracken green and cold grey stone."

in Canto VI. stanza xv., and the beautiful stanzas which conclude the poem—

"Harp of the north, farewell; the hills grow dark,
On purple peaks a deeper shade descending."

Another respect in which early tastes and experiences have materially influenced Scott, is in the love of ancestral legends and traditions, which gives his poetry its nearest point of contact to that of Homer. Scott, like Homer, had been much in intercourse with the survivals of a civilization essentially military, aristocratic, and traditional rather than seeking embodiment in written documents. He seems to us one of the nearest approaches to the Homeric enthusiasm for the names and genealogies of chiefs, and for the fire and realism with which personal exploits are described. An instance of this tendency in Scott was his delight in the military profession, as seen in his long service as a cavalry officer in preference to prosecuting his profession as advocate. No part of Scott's character is more striking than the predominance in him of all the chivalry and sense of high honour and unselfishness, to which we give the "grand old name of gentleman." That this may have been largely inherited is evident to those who read the very characteristic anecdotes by which Mr. Hutton has illustrated the disposition of Scott's father: it is seen in the delicacy with which all Scott's female characters are drawn, and nowhere is its sympathy with all that was best in feudal chivalry better shown than in the two cantos of the "Lady of the Lake" which form the subject of the next Examination.

(To be continued.)

NEW YEAR'S EVE.

A PRELUDE TO A PHILOSOPHICAL POEM.

Felix qui rerum potuit dignoscere causas,
 Quicquid metus omnes et non exorabile fatum
 Subject pedibus, strepitum quo Acherontis avari.—*Virgil.*

This New-Year's Eve, with no companion near,
 Nor any home-voice left to answer mine,
 Within this chamber, lone and poor, where yet
 Books and the kinship of high thoughts abide,
 I muse amid the city's solitude,
 No murmur from whose ever-busy world
 Can reach me here. One presence I would seek—
 One soul invite with me to commune now—
 Brother's, or sister's, to whose thought these scripts
 Bring kinship thought of all I fain would teach—
 And, teaching, learn—the love for truth as truth,
 The fix'd resolve to bear the torch she gave
 Of old to better times and nobler men,
 From hand to hand unwaning. “Happy he
 Who sees the Cause beneath the shows of things,
 Who fate and fear of gods and of the grave,
 Beneath Man's feet has trampled.” So of old,
 The Master Poet, he whose music made
 The city less eternal than his song—
 So they the prophets and the kings of Thought,
 Whose word all time inherits. But the day
 Fleets fast, the darkness comes when none may work,
 Therefore with thee, this night—while wanes the Old,
 While dawns the New—with thine own absolute self
 I hold communion, with the soul transformed
 To all it might have been, and may be yet,—
 Pure, true, and just, and noble, in the life
 That lives for others, till man wins for man
 Enthronization in the heaven of love,
 And law, whose name is Freedom, self-ordained
 To aid this work and bid this kingdom come.
 I greet thee well, even I in my degree,
 Who sing in twilight as a bird that chirps,
 His prelude to the fuller songs of dawn.

So at this threshold of the dim New Year,
 Like strangers sheltering from a storm, are met
 The past and future, thy young soul and mine;
 Thine, chivalrous to do and dare for truth
 All that priests curse and vulgar spirits fear—

Thine in a bright ideal jubilant ;
 But mine afflicted for high hope struck down,
 And through all chords of triumph hearing still
 The low, sad murmurers of despair and crime -
 The shuffling feet that bear the coffin forth—
 The bell, whose hateful tolling weights the wind,
 Above all voice of human gladness borne—
 So in this hour of solemn communing
 Thy Soul most near to mine, and both made one
 With all that has been, all that shall be, Man ;
 Let me recall the lessons of the past.
 And what was given and what returned—do thou
 Make answer.

When Spring came dancing on the frozen earth,
 Calling the sleepers back to life again,
 And flowers looked up and kissed her flying feet,
 And budding trees, wild with the wine of life,
 Clasp'd the young beauty in their glowing arms,
 And the rough waves broke gentler on the shore,
 And streams laughed lightly as they bounded on,
 Where wert thou ?

When the girl, Summer, drew her veil aside,
 And to the sun's kiss made her beauty bare ;
 When wanton winds that wooed her, scarce could press
 Her ripe red lips, faint with excess of love,
 Lingering over in her perfum'd hair
 As though it were their home, through all that time
 Those long bright days, those dim and slumberous nights.
 Where wert thou ?

When matron Autumn, with her purple hands
 Grasping the branches, shook ripe fruits to earth,
 And weary peasants by the harvest moon
 Bound up the yellow corn, and gathered it,
 And laid it all before the rich man's feet
 He surfeited, they starving all the while ;
 Was thy voice heard proclaiming this great wrong
 To men and angels, answer, Soul of Man—
 Where wert thou ?

When the fleet frost-nymph girt her armour on,
 Of keen, cold, glittering ice, when leafless trees
 Outstretched their bare arms to the winter sky,
 As to ask back the shade their leaves had given—
 In the hard times, greed's harvest—then, when Pride,
 And Luxury, and mad unfeeling Mirth,
 Lit up the houses of the rich and great,
 When over all the land the toiling poor,

Scarce sheltered, shivered in the pitiless cold—
 As still, to glut the few, the millions starve !
 Was word of thine outspoken, hand upheld,
 To bid the slaves be freemen—where wert thou ?

But most I seek for thy companionship,
 Mid those, the heroes of the days that were,
 When Freedom's advent named anew the years,
 And France was world and hope and home of all !
 Spirit of Man ! then first within thee woke
 Thy conscious mission, kindled then the fire
 That still through storm and night and need burns on,
 Whose virgin sword-flash smote the heads of kings
 Fast as the poppies fell for Tarquin's sport,

Thou didst not fail when fell by felon hands,
 Pure Virtue's earthly image, Incorrupt,
 Amid the bloody dust of Thermidor.
 Thou still art ours, in later, baser days,
 Though to thine own thou camest and wast betrayed !
 A scaffold for thy throne, and for thy court
 A charnel-chamber with its portal sealed,
 And watch and ward made sure by priests and kings,
 Who ruled the night, their hour—but Thou wast risen !

Spirit of Man ! my Brother, Father, Lord !
 Of Law and Life and Force the Crown and Flower ;
 Of Life that sleeps in inert earth, that wakes
 To dream in plants, to dimly know itself
 In Nature's marvellous machines, in man
 To feel at one with the ideal Man,
 Who lives through all the ages, in whose voice
 Each human life is as a wave of sound—
 The glory of whose mind the Heavens set forth,
 Whose genius Galileo's stars declare.

(To be continued.)

IN MEMORY OF A TEACHER, DIED JANUARY 6, 1881.

She dies. No more the few friends faintly praise.
 No more the many critics coarsely blame !
 No Love-light shone through all her weary days.
 Unmissed, unmourned, to her the long night came.

So best ! The Law, unbribed, who thus fulfil,
 Unpaid, unpraised, the high behests obey
 Of Duty ! though the School-day noise be still,
 These have not missed their solitary way.

C. P. M.

January 7, 1881.



"Passed and not Passed."

META HILL'S SCHOOL,

BEING A PASSAGE IN THE HISTORY OF AN ONTARIO TEACHER.

(*A Story written expressly for Gage's School Examiner.*)

CHAPTER I.

PRELIMINARY.

META HILL was on a visit to her Uncle William Findlass. She was one of a large gathering of girl-cousins, packed as close as could well be managed in a snug, but small farm-house, somewhere in South Hastings. She and her cousin Annie had been in for the examinations for third-class certificates, held at a large village some few miles from Uncle William's home. Of the result, Meta had no great fear—a serious, staid girl, whose self-dependence had been fostered by having early lost both her parents. She had been brought up in Toronto by her mother's mother, who had a small house in the far eastern part of the city. Meta had been taught at what was then, as now, one of the best of the Toronto public schools, that which, in the northeastern part of the city, not far from where Meta lived, bears the name of one of the most popular of Canada's Governor-Generals. Meta's teacher, a young widow, was providing for her children by zealous and intelligent attention to the duties

of her school-room. She soon made a friend of the motherless girl, and it was her example and counsels that first led Meta, while still a child, to aspire to the profession of teaching. Mrs. Geraldine was indeed a good model for zeal, energy, and cheerfulness. Everything seemed to go by clock-work in her room; order was maintained seemingly without trouble; the discipline was like G  the's motto, "Without haste, without rest." She was most careful to impress on Meta's mind the duty of inflexible adherence to duty, of never yielding a point merely to conciliate a refractory parent. She was accustomed to make both scholars and parents yield to her own ideas, which were in the main quite correct, and, when in their last interview before Meta went to pass her examination, she impressed on her *proteg  * the importance of imitating her in this respect, she did not, perhaps, consider the difference between a city school, where discipline is everything and the caprice of one or two of the parents nothing, and a country school where the people of the township are a class bound together by all sorts of intermarriages, and where to quarrel *   l'outrance* with one scholar, is to break with the parents and the school-section at their back.

The list of successful candidates was published. Meta's name was there; that of her cousin Annie was missing—not for the first time. Annie was a tall, slight, nice-looking girl, who had a distaste for the somewhat rough house-work of a farm like her father's. For several years she had enjoyed exemption from the duties that fell to the share of her one brother and numerous sisters, being, as was supposed, engaged in "studying" for the certificate examination. She had once taught a small school in her father's neighbourhood, on a "permit" from the county inspector, which all that gentleman's good nature could not, however, induce him to renew. For alas! few thoughts of study entered into Annie's pretty head, the glossy curls on the outside of which were of much more value in her estimation than the brain within. She had regularly gone up to the village of Lighton for the examination; as regularly had a severe headache intervened to prevent her answering being all it would no doubt have been but for that untoward accident. Failure after failure did not disconcert her. Her father consoled himself by regretting the good old days of local influence and the County Boards. Annie would have got her certificate easily enough under their *regime*. She was one of a large class of would-be teachers, from whom the new *regime* has saved the public schools of Ontario. But she was very good natured, and, being used to it, not much put out by what she could hardly consider as a disappointment. In Meta's success she took real pleasure, and overwhelmed her with congratulations. The news had been brought by Amy Rawson, an old schoolfellow of Annie's, who, having passed herself, had already been engaged for the school section to which Uncle William's farm belonged.

"And what luck! now I think of it," said Amy, "there's the Spooksville school vacant, the very next section to mine, and if Miss Hill likes to apply, the trustees live quite near, and your pa has only to ask them!"

"Why, pa shall drive you over there to-morrow, Meta," said Annie. "I could have had the school easy enough if I could only have got a permit from the inspector. All the trustees wanted was to take the cheapest offer they could get. You will be so nigh that you might almost as easy board with us and walk over the fields to Spooksville."

"Too far, Annie," said her friend, who was domiciled in a snug farm-house close to the school, "besides, it's the custom for the Spooksville teacher to 'board round.'"

"Are there any nice people at Spooksville?" asked Meta.

"Oh, I reckon much the same as most country schools. The children—there's about thirty of them—don't give much trouble; the trustees, none at all—there's three of them. The richest is an old fellow called Young, *old Young*, the 'Contradiction in Terms,' I used to call him. He is the richest man in the township, lends money, and owns half the farms



on mortgage. He won't give any trouble as long as he gets a cheap teacher to lessen his share of the school tax."

"And the other two trustees?"

"One is rather a decent fellow, an organ and sewing-machine agent. He has a girl and two imps of boys at the school. He has come in for some money lately somehow, and the village people say he has sold himself to the evil one—as if the foul fiend were foolish enough to spend money on the soul of a sewing-machine man."

"I hope the third trustee is more promising"—

"He is the greatest savage of the lot, an old miser who has got ever so much property into his hands. He rules his family of boys and girls (some of them go to the school) with a tight hand, as stingy to them as he is to everyone else, himself included."

"So my question about the 'nice people' is answered," said Meta, smiling.

"'Dost like the prospect?' as Pauline's lover says in the 'Lady of Lyons.' Well they are not exactly a very lively set, but you'll have a quiet time with them. No one will trouble you as long as you get on well with the children, and as long as you don't set them against you, with being too strict, they are easy to manage. Then, you are near our section, and the girls here will fetch you round to all the parties—we have plenty every winter, haven't we, Annie?"

Annie's black eyes shone bright at the thought.

"Only don't you get your head full of fancies about teachers' responsibilities, and new lights of discipline, and all those absurd vagaries people read in their School Journals. School Journals, indeed! I never could abide them for one; *Harper's Bazar*, with the fashion plates, and the last *Seaside Library for me!* Get a good *gad*, and mind your cue with the children; take things easy, and don't bother the trustees more than you can help about repairs. You'll do well enough."

Next day Meta was driven by her kind Uncle William to Spooksville. They stopped at the house of the sewing-machine man, Mr. Flint, who was anxious to induce Uncle William to purchase an old reed organ, which he had bought for twenty dollars, at a price of thirty dollars down, and a bill for sixty at six months. Mr. Flint promised his interest to secure Meta an engagement, and Uncle William gave him his own price for the organ. Surely it would have been quite superfluous for the power alluded to in the popular legend to incur any expenditure for Mr. Flint's soul.

Meta was duly engaged for six months, was invited to board for the opening week with Mrs. Flint, and set out, all anxiety, to see the school building which was to be the scene of her first effort at self-help.

CHAPTER II.

META'S WORK BEGINS.

The week spent at Mrs. Flint's was simply colorless. The family were good-natured, commonplace, uninteresting. Meta's greatest consolation was that she was left a good deal to herself. The village was the remains of what had once been a *portage*, or road by which luggage and cargoes were carried across the narrow isthmus of a mile, in order to avoid the dangerous sailing round the county peninsula, which stretched its spider-like arms in every direction into the lake, catching vessels like so many flies. There had once been leading families, whose large brick mansions told of former opulence. These had all disappeared save one or two survivors, old and in poverty. The church had at one time been a goodly whitewashed building; now it looked like a used-up old steamer, and rocked and creaked in every wind. There was one store, the post office, where the cheese was flavoured with tobacco, and the tobacco with cheese—both with red herrings and general mouldiness. The aspect of the village was one of the shabbiest kind of ruin, and of half the houses ghost stories were told. The dingy old Episcopal rectory was said to be "walked" by the shades of former parsons, doors heard to bang, and lights mysteriously appeared in the windows of several of the older houses. Indeed, so accustomed was everybody in Spooksville to the constant presence of what most people would consider uncanny, that "the spooks" were quite a recognized part of the community, and little children would beg on the summer nights to be allowed to stay out later in order to watch the spectral light dancing up and down in Squire Deadman's windows in the great house now shut up and ruinous, where the carriages used to gather, and the beautiful ladies hold high festival, in the good old times when the ghosts of to-day were living men and women, and the admirable "Family Compact" ruled this Dominion as the N.P. does now.

The school was a new brick building with a yard well fenced from the road—the only sign of new life and progress in the place, as Meta thought. But it was in wretched condition inside; walls which had never been whitewashed were as dingy as the floor which had never been swept, ink and grease saturated the desks, the cracked old black-board was full of chinks into which the chalk gathered, the maps were antiquated, and the strings used to pull them out, twisted and torn hopelessly. Part of the available room for school desks was blocked up by a platform constructed for the purpose of forming a stage for some amateur theatricals for which the school had been "borrowed" last winter, and numerous traces of the Thespian art remained in the curtain rod, sconces for lamps, and rude, but not over-delicate, caricatures on the walls. The school, it being the busiest time of the summer with the farmers, was small, the children all young except Mr. Flint's big Ned, an overgrown lad of fifteen, and his sister Bella, a year older than himself.

Meta's first experiences with her pupils were not encouraging. She had been accustomed

to the quicker capacity and wider range of observation and expression of the children in city schools, and was not prepared for the stolid vacuity of country life to the little ones. What Cowper says of penury, that where it

"is felt the heart is chilled
And sweet colloquial pleasures are but few—"

is still more true of the poverty of life, variety, color, which often falls to the lot of little ones in a monotonous country existence. Meta soon found, as she got to know them, that under the surface, wanting in expression and untrained in observation, lay a thousand keen perceptions of the sights and sounds of nature. But at first she was mainly struck with their ignorance, and seeming incapability of being taught. The only study which everyone seemed to cultivate was arithmetic—"sums" all day—the perpetual click of slate-pencils, and the elder scholar's self-satisfied air as she showed a fair copy of some half-dozen sums, with an expression of face which too clearly revealed that no mental, or at least intellectual, enlightenment accompanied the process. All the other lessons were purely mechanical. None of the children were past the third book. In the junior class the recitation of the first lesson Meta heard was a doleful sing-song of a-s-s, ass; m-a-n, man; m-a-p, map, and the older classes were little better, a mournful monotone of recitation. No spirit, no signs of intelligence, no brightening of the eye or kindling of little faces was allowed to vary the solemn ceremony. Once, the elder girls were reading the words of the "Old Hundredth," while Meta was trying to get them to understand and read over intelligently, before she taught them to sing, for to vocal music she looked as one means of bridging over the distance between herself and them. She had explained the line,

"We are His flock, He doth us feed,"

by appealing to what all of the pupils before her knew so well, the tender care of a shepherd for his flock of sheep. She made them understand that the hymn meant that the goodness of Providence towards them was like that of a shepherd to the flock. She illustrated this by a picture of the Good Shepherd in her scrap-book. The class gave unwonted signs of intelligence. There was, as the French say, a movement of adhesion. Meta went on to the next verse.

"And for His sheep He doth us take."

On questioning one of the most intelligent of the girls as to the meaning of this, it was evident that the bright little blonde, named Georgie Hale, had understood something of the allegory, but on further sifting it appeared that Georgie carried the idea of subsistence being provided for the sheep further than the original text warranted, which she read thus,

"And for His sheep He doth us steak,"

without regard to the exclusively vegetarian nature of these quadrupeds.

Meta's first success was in getting the children to help her to decorate, or rather to clean, the school-room. One day, after most of the lessons were over, she repeated a story which she had read in a book of travels, illustrating the leading incident by a rough outline sketch of a palm tree on the new blackboard, which she had procured from the neighbouring town of Brenton. Also an object-illustration of a cocoanut and a date. This "took" as nothing else had ever been known to take among these children. "Teacher's stories" became an institution. One of them described the great good done in a rough neighborhood in a remote part of Ireland by the efforts the school-children made to set a good example of cleanliness and neatness in the village school. As Meta had intended, her scholars applied the lesson to themselves, and joyfully agreed to her proposal to stay for an hour every day after school, in order to do some work towards remodelling the condition of the building. Meta only allowed those to stay whose conduct admitted them to her peculiar favor. Thus, "keeping in" became a prize instead of a punishment, and hence

the girls and boys took part eagerly in the work. First of all the school and all its furniture were well scrubbed with hot water, then the walls were whitewashed again and again, and decorated with one or two large photographs of antique statues, a cheap chromo or two, but of no vulgar subjects, copies of great works of art—Raphael's "Madonna di San Sisto," Airy Sheffer's "Mignon," and here and there, in smaller size, a reproduction, in not unfaithful coloring, of Turner's most characteristic works. Over all hung framed this noble verse from Emerson,

"So dear is glory to our dust—
So close is God to man—
When Duty whispered low, 'thou must,'
The youth replied, 'I can.'"

The process of improvement took many weeks, the school began to fill up again in the meantime, and the scholars who had grown accustomed to Meta's ways, and whom their common interest in the school-room improvements had drawn closer to her every day, soon influenced the new scholars. Something like order was now introduced into the school. By lessons, which the younger children considered better than any play, Meta enlarged their power of observation, using object lessons as far as possible, and combining the minimum of task-work with the maximum of result. Insensibly to themselves the little ones began to take to good and intelligent reading, the first elements of writing, singing and reciting, as well as the art of elementary drawing and of designing patterns of all kinds from the many-shaped and many-coloured figures with which their teacher supplied them from her kindergarten books.

Her second week's boarding out was spent at the house of the "Contradiction in Terms," where there were no young people, and the head of the house, the "Contradiction in Terms," spent most of his time—if not like "the king in his counting-house, counting out his money,"—at least in his office at Brenton, looking over his securities and those mortgage deeds which gave such a heavy, dull, and ordinary a human being so great an influence in the affairs of the county. His wife, a fat old woman with a great idea of her own consequence, spent most of her time with the hired girl, who knew how to flatter her humors. But the house was comfortable enough, and Meta had at least the comfort of being left to herself.

The third week she boarded with the third trustee, two of whose children, Jacob and Ruth, attended school. Ruth was a young woman of seventeen, tall, vigorous, the embodiment of health, and with plenty of good sense and good humor, joined with a certain coarseness. Jacob was an active and helpful lad of fifteen. Both had been helping Meta to lay out a little border of flower garden along the line of the fence of the school-grounds. Jacob had painted several soap-boxes, which had been begged from the village store, a bright red color, to fit them for the reception of various geraniums and fuchsia plants, which Meta had bought at Brenton. They were fond of Meta, and were glad to bring her to their home. It was a roughly built, but substantial, farm house, close to a reach of stagnant water, where now the railway bridge crosses, but where then only a rustic wooden planking spanned Coffin creek, the connecting inlet of swamp between lake and bay. Tea was ready by the time Meta and the children entered. Mrs. Dow, mother of Jacob and Ruth, was already at the door blowing a huge tin horn to summon her husband and his hired men to supper. The living room was also the kitchen, a huge pine table, without a cloth, but perfectly clean, stood in the centre, surrounded by all the chairs and stools the house could furnish. At one end was Mrs. Dow's place, before which was an ample tray filled with huge pint mugs, and a teapot about the dimensions of a patent pail; opposite were dishes full of chunks of pork, potatoes, boiled in their skins, and a great round pie, in shape and consistence like a circular saw.

Presently the hired men came in—three rough looking, but good humored young men

—followed by the father of the family, Mr. Dow himself, dressed as roughly as any of the men, without a coat, his grey hair streaming over his beetling brow. Intelligence and strength of will were indicated by his keen face and square, determined-looking lower jaw. He barely nodded to the teacher, whom his wife invited to a place beside her. Plate after plate was heaped up with viands, and passed round to each in turn, no one beginning till all had been supplied. But there was no attempt at conversation. After tea Meta sat for a little in the "parlour," a room furnished with somewhat more pretension than the kitchen. Ruth and indeed her mother were loud in their complaints of Mr. Dow's stinginess, as Ruth longed for a reed organ from Mr. Flint, but "pa" would not hear of it. Her girls, Mrs. Dow said, were dressed worse than any girls in the township, but Dow always made out he couldn't afford better. There was evidently rebellion in that household, and yet no one who looked well at Mr. Dow's determined face could doubt that he would hold his own. To Meta, during her stay, he was as indifferent as if she had not been there, but once or twice he growled out a word of dislike to the drawing and water-colour lessons she was giving to his children. "What's the use of painting?" he said. "My girls ain't going to be sign painters, nor yet school marmas. I don't half like these new-fangled ways. I never learned to paint, nor yet to write, but I have been able to buy out many a scholar in my day, I reckon."

Mr. Dow's house was at a convenient distance from the school, and Mrs. Dow was very glad of the teacher's presence with her children. Rough as he was, Dow himself relaxed considerably towards Meta, when he found that she was able to give him help in writing out his accounts, a task in which she assured him that Ruth would soon be quite able to relieve her. It was proposed that Meta should board there permanently and to this, as on the whole, the most comfortable arrangement, Meta agreed. The life there was coarse but not unpleasant. Meta had got down her little four-and-a-half-octave melodeon from Toronto, and had it set up in her bedroom, which, with help willingly rendered by Ruth, soon assumed the air of refinement which comes so naturally to the nest of a nature in itself refined. There were a few good books—Milton and Shelly, Oliver Wendell Holmes, and George Elliot, and some more serious works chiefly on subjects connected with practical education. So life passed quickly enough. The school was decidedly improving. The inspector's unexpected visit was a day of just pride and triumph to Meta, and a few earnest words of approval, spoken by that gentleman in the presence of her scholars, brought home to her the truth that sweeter and nobler than any other is the joy of living for others—even in the discharge of the humblest duty. With the children she was not so much "popular," as one of themselves—one they trusted and looked up to. It is true there were exceptions. Mr. Flint had looked on Meta with disfavour ever since her melodeon had extinguished all chance of Mr. Dow becoming a customer for one of his grand reed organs. His daughter Bella, a heavy, sulky-looking-girl when at her best, was rebellious, sullen and obstinate as she could be in the school-room, and outside of it kept aloof from all Meta's plans. Once, too, Mr. Flint came in during school hours, while Meta was busied on an object-lesson with the little ones. He walked in, witnessed with saturnine aspect the eager answers and movements of the children, then saying, in a gruff tone, "Seems to me it's all play and no work in this school," went on his way. That evening Meta was asked to a party at her uncle's. Jacob Dow, like the good-natured lad he was, had offered to drive her over in the buggy, and to call for her at eleven, the latest hour to which Uncle William's dances were allowed to extend. Meta was somewhat put out by Mr. Flint's visit, but this wore off when she had walked home with Ruth and Jacob under the golden September trees, and had taken a cup of Mrs. Dow's excellent tea, with some fresh biscuit and a glass saucerful of preserved citron made by Ruth, clear, fragrant and topaz-colored in its translucent sweetness. They drove over. Meta was enthusiastically received, and the blushing Jacob compelled to remain as a guest. The evening was a pleasant one. All seemed resolved to enjoy

themselves. The dancing might not have satisfied the superfine soul of Professor Fanning, but Annie and Nellie Findlass, and Meta, too, found it pleasant, nevertheless. In the course of the evening Meta was asked to dance a quadrille by a young man whom she had not seen before, a tall, noticeable figure in a plain black coat, rather better made than is the wont of country tailors. His manner was quiet, but in the few words for which the dance gave room, he told her that he had lived for several years in Toronto as a law student. He had heard of Meta from his sister Ruth, and thanked her for the improvement he noticed ever since Ruth had come under the new teacher's influence. This could not fail to gratify Meta. It was evident that her partner was no other than the brother Rupert, of whom Ruth had so often told her. After the dance he begged Miss Hill's permission to drive her home, to which she consented, subject, as she added, to the consent of Jacob, her *chevalier* in the journey from home. "You do not wish to go back on your older friend for a new one. Constancy is rather an old-fashioned virtue, Miss Hill, but it is one which, I can assure you, I know how to value." The dance ended, there was supper, all manner of sweet cakes, tartlets, pies, iced and sugared dainties—for which Annie and her sisters Amata and Nellie were so famous—with lemonade, sherbet, and sweet cider from Uncle William's orchard. Then several of the girls sang those dreadfully sentimental songs current in country circles, such as "The Sweet Now and Then," or "Let the Dear and the Dutiful rest," and after some pressing, Rupert Dow gave a reading from a book little known in those regions, "The Lost Tales of Miletus" of Lord Lytton. He chose that remarkably dramatic poem "The Wife of Miletus," and so fully impersonated the utter abandon of passion in the wicked wife, that when the avenging knife fell, in the last stanza, an old farmer who had listened with eagerness of attention which he seldom gave to poetical recitations, exclaimed, "Well she was a bad 'un, yet I'll be bound there are plenty as bad among the wimmen." Meta was next asked to sing. She had composed a ballad in her Toronto days. It was written almost to the monotonous accompaniment of the rain as it pattered against her window in the days of utter loneliness and purposelessness. She had set it to an air of Schubert, a wild, plaintive melody in the minor key.

META'S SONG.

To-night my heart is lonely
 And sad as sad can be,
 There is not one in the wide world
 To look with love on me.
 And wearily the wind blows
 And blindly falls the rain.
 It seems to strike upon my heart
 Not on the window pane.

The weary wind will rest it!
 The rain will slumber well,
 Deep hidden in the rosebud's heart
 Or in the sweet bluebell.
 But still my heart is throbbing
 As sad as sad can be,
 There is not one in the wide world
 To think with love on me.

Everybody praised the song as everybody praised the other songs, yet, although Meta did not once look at Rupert Dow as he stood, thoughtfully listening, she felt that he understood her little lyric as none of the others did. Yet he did not praise it. "That kind of poetry will find an echo in most people's thoughts who have felt solitary and listened to the most desolate sound on earth, the patter of the rain," he said as they drove home. "But I do not like mere emotional verse. There ought to be a higher aim. We need all the aid poetry can give us to strengthen the unselfish love of others, the *vivre pour autrui*."

Meta liked him the better that he could criticise rather than praise. It is so much pleasanter to be understood than to be flattered.

(To be continued.)

BRIC-A-BRAC DEPARTMENT.

ANSWERS TO CORRESPONDENTS.

AUTHOR.—Your poem called "The Disembodied," would, if published, turn out to be the Un-sold.

MATHEMATICIAN.—The process called "arguing in a circle" was first practised by the king of Syria, round whom the Roman envoy drew a circle, and told him to make up his mind before he quitted it. The same process may be illustrated in the third book of Euclid.

A LADY VISITANT TO TORONTO.—Yes, you ought to visit the University. It is true, you must be careful not to attract the attention of the students. You had best avoid banged hair, old-gold ribbons, and indeed might guide yourself by the regulations adopted by ladies about to be presented to the Pope. The authorities object to co-education, what they fear is bill-and coo-education. In visiting the library, it is well to take special notice of what all lady-visitors consider is one of the most valuable treasures of the place, a notice which happens to be deposited there respecting the fine reading room. This the authorities expect every lady-visitor to read slowly and in a distinctly audible voice. To do this affords great gratification to the students and literary men making use of the library.



UNDER THE ROSE.

I.

"Under the rose," what secrets do they whisper!
At School, what luckless scrapes to Tom befell
What present Santa Claus will bring to Alice—
With many a pledge to never, never tell.

II.

"Under the rose," what mystic joys hereafter,
The bright hours yet to boy and girl will bring!
How sweet that sparkling fount of tears and laughter,
The stolen waters of love's secret spring!

III.

"Under the rose"—the secret safely keeping,
Of all the future one with all the past—
After life's fitful fever, they are sleeping,
The key to all its questions found at last.

TWICE IN A LIFE.

A merry girl sat under a tree—
Thus to herself sang she—
"When I am wed, how happy I shall be!"

A weary woman sat under a tree—
Thus to herself sighed she—
"When I am dead, how happy I shall be."

—ROSALIND MARY BECKET, Toronto.

FROM EMERSON.

So dear is glory to our dust—
So close is God to man—
When duty whispered low, "thou must,"
The youth replied, "I can."

AS INTERPRETED BY OUR BRIC-A-BRACIST.

So fond of dry-goods are the sex—
So sweet on shop-men they,
That when the youth inquired, "what next?"
She gave herself away.

L'ENVOY.

There are few callings which are likely to benefit more by an occasional glance at the humorous side of life than that of the Teacher. The despotism of the dominie is well "tempered with epigrams," many worries which the unbroken seriousness of a matter-of-fact disposition magnifies from their proximity, will seem of very little account if one sets them aside for a time, taking refuge in that sense of humor which human nature, alone of existing things, as far as we know, possesses as a counteracting force to the otherwise crushing weight of the serious side of life. In order to minister to this, the Bric-a-brac-ist Editor will extract from time to time, sundry of the wisest and wittiest utterances of his contemporaries, beginning with *Grip*, whose daring explorations have annexed to Canadian literature a whole continent of *Grin-land*, and not neglecting those sparkling American journals of the comic persuasion whom we may number among our exchanges. We shall supply on our own account *vers de Societe*, essays on literature, philosophy and art by a leading comic philosopher. Articles on therapeutics will contain directions for the removal of all diseases that afflict humanity, with the exception of Poverty and Love.

GOWNS AND CO-EDUCATION.

(A Satiric Ode, respectfully addressed to the Undergraduates of Toronto University.)

O! the unhappy, miserable wretches,
'Varsity students of the male persuasion,
They with such eager effort now desiring
Co-education!

Never shall sun, through windows academic,
Show the gold tresses of the sweet girl-student;
Show the gay shimmer of their polonaises,
Bright as aforetime!

Nor on the steps that lead into the class-room,
Nor on the stairs to library ascending,
Are the clocked stockings seen, or dainty, bronze-hued
Boots of the darlings!

Nor shall sweet lips be heard pronouncing "co-sine,"
"Radius," "arc," "hypothenus," or "tangent,"
Words of strange meaning in the mystic science
Called "mathematics."

"Gowns do ye ask?" so say the Dons derisive,
"Verily gowns the statutes shall supply ye!
"Caps, too and gowns, even such as those the rules pre-
scribe to the student!"

—A CANADIAN GRADUATE.

LITERATURE IN A.D. 1981.

(From some very Advanced Sheets.)

There appears to have flourished about the year of the Christian era then in use, 1881, in the city of Toronto, which even then was the recognized intellectual centre of Canada, a great writer whose name is variously spelled as Goldwin Smith or as Goldsmith. The latter form is probably a contraction of the former. He wrote the "Deserted Village," a trenchant satire on a place called Hamilton, which for many centuries has vanished from the map of Canada. He seems also to have, in common with a cotemporary writer named Addison (whose chief works were published in Toronto), written a series of essays called the *Bystander* or *Spectator*, terms evidently synonymous. It is related that this eminent man of letters secluded himself in a delightful retreat called the Grange, about which a poet of the period named Tennyson, from his devotion to the national game of lawn tennis, wrote a beautiful descriptive poem. Here were kept chained two ferocious dogs, called "*Globe*" and "*Annexation*," which were in the habit of worrying each other whenever they got loose. This, however, was only permitted occasionally, in order to scare away suspicious visitors.

LITERATURE, 1880.

THE year which has passed has been fruitful in works of the highest value in philosophy, criticism and poetry. A new book of lyrics, by Swinburne, at the beginning of the year, has been followed by a new volume of Tennyson's lyric poems, at its close—each of the highest rank in poetic art. Browning and Matthew Arnold have continued to enrich our literature. In philosophical fiction the death of George Elliot saddens the year. In philosophy the most remarkable book published has been Herbert Spencer's establishment of morals on a scientific basis in his "*Data of Ethics*," and his exposition of his views on Education; the "*Data of Ethics*" closes a system marvellous for its consistency and completeness, in which the correspondence of every part of the reasoning to every other, has the unity of a poem or a law of nature. A series of *Lives of English Men of Letters*, under the admirable editorship of Mr. Morley, is a new feature in our literature. These short sketches, each by one of our best writers, are far more philosophical and in better literary form than anything since Macaulay's beautifully written, but too rhetorical literary sketches. Among the very best of them for charm of style and thorough sympathy with its subject is the "*Life of Cowper*" by Goldwin Smith.

With the revival of prosperity in Canada, literature too has shown signs of more productiveness. This year brings to a close the first volume of the *Bystander's* half political, half literary comment on current events, the brilliant style of which has attracted readers from those least disposed to agree with either the Liberal or the Conservative side of Mr. Goldwin Smith's platform. A volume of longer essays by the same writer is understood to be in the press.

In biography, Mr. Rattray's extensive work on "*The Scotch in British America*," is a permanent gain to our literature. In poetry, high place must be given to "*Orion*" by Charles G. Roberts, a graduate of Fredericton University, and Head Master of Chatham High School, N.B., also to "*The Coming of the*

Princess" by Kate Seymour Maclean, of Kingston, Ont., a charming book of the truest and sweetest lyrical music. A volume of lyric verse by Philips Thompson is in the press, and will be worthy of "Jimuel Briggs'" high fame as a comic and as a serious writer. Several new journals have appeared, and the old ones, notably the *Globe* and *Mail*, have shown renewed vigour. Last, not least, is the literary gift of the New Year to Canada in *Grip's Almanac*. This number is a great advance on anything yet issued by the house of Bengough. The art illustrations are of a very high order indeed, and represent a corps of artists of whom Canada has reason to be proud. Of the literary part of the Almanac, there are reasons which prevent the present writer from expressing an opinion. We may say however, that the beautiful obituary verses by the editor of *Grip* in honour of George Brown, are true poetry of a high tone. A country that produces such writers has reason to complain of the somewhat supercilious tone in which certain great journals treat Canadian literature.

Dr. McLellan's Algebra, as well as Mr. Jas. Hughes' Manuals of Teaching have received the highest praise from the leading educationists and the leading educational journals in Great Britain and America. Of Dr. McLellan, it is said by the *English Educational Times* that "he is identified with a system of education whose success places Canada high, not only among British Colonies, but among the nations of the world." Mr. Le Sueur's Philosophical Essays have received the praise of Herbert Spencer, an honour fully equal to the crown which the French Academy, in the summer of 1880, bestowed on Louis Frechette of Montreal.

TOPICS OF THE MONTH.

IN the United States the Presidency of Mr. Hayes closes with honor; he has identified himself with two measures whose success is as yet below the surface, the education of the Southern negro and the reform of the civil service.

IN Ireland the situation is one of unarmed revolt, the result of many causes in the past history of that unhappy country. The Government of the day is reluctant to employ, until driven to the last extremity, the weapon of coercion, which former Governments have tried so often and with such bad results.

IN France the Republic is carrying out the experiment of taking education out of the hands of the Catholic Church, thereby carrying out with pitiless logic the principles of Liberalism, but making an irreconcilable foe of that Church and its adherents, many men and all women.

TORONTO has been visited by Archibald Forbes. As a lecturer he is bright and entertaining without possessing any remarkable powers as an orator. In the same city, lectures have been delivered on the Anglo-Israel craze, and on the great pyramid hallucination, two subjects which gauge pretty accurately the scientific ignorance of those who pay to listen to them.

IN our own cities the gladness of the festive season is saddened by several horrible tragedies, on whose details it is not good to dwell, all caused by the use of strong drink. Oh, that every person who reads this Leaflet may resolve to support, by voice and act, the temperance cause. The only effective temperance measure, Prohibition, must be carried in the schools of Canada.

THE weary Eastern question still drags on. The barbarous Asiatic intruder into Europe dies hard. The Turk will at least fight as long as his bankrupt government can get credit for cartridges. Hellas, as of old in the dawn of European history, is arming for battle against the barbarian. If the present Government retains power in England, their sympathies will be with the countrymen of Homer.

IN Germany the Government is struggling with what it calls "Socialism," but we must remember that under that name is included by the German rulers many a demand for political rights which to us seems matter of common sense. Just now there is a strong national feeling against the Jews, not on religious grounds, but because they are thought to be a secret society of conspirators in the interest of the great money lenders of their own race.

CANADA enters the new year with an undoubted increase in trade, and better prospects. Political partisans may attribute the good things to this or that political Santa Claus; we who are not partisans of either side, simply record the fact. The Pacific Railroad, whatever opinion may be formed of the terms on which it is put into the hands of a joint stock company called a Syndicate, will open up vast tracts of country, consolidate and connect the Dominion, and put a good deal of ready money into circulation.

IN Russia the absolute rule of the Czar is endangered by the vicious and oppressive civil service, or bureaucracy, which in reality governs. The peasantry and the lower class, which it is the fashion to call the proletarian, submit, but among the partially educated class a form of Socialism called Nihilism is widely spread. The Czar forgets both duty and danger in the society of a harlot of high rank whom he has desecrated marriage by marrying. Russia is now as was England under Charles II. and his mistresses, as was France under Louis XI. and Madame du Barri.

THESE Leaflets will be issued monthly, on the 15th of each month. They will contain a complete summary of current events, and being compiled with special reference to the needs of the elder scholars, will be a valuable supplement to the ordinary teaching in geography and history, in the hands of an intelligent teacher. Children should know something of what is passing in the world around them, yet too often they know more about the Saxon kings of the Heptarchy, than of what is now occurring in France and Russia. It is hoped that by supplying topics of constant interest, the Leaflet will be a new link between teacher and scholar, between the school and the home.

EXAMINATION PAPERS

SUITABLE FOR

THE ENTRANCE EXAMINATION TO THE HIGH SCHOOLS.

Arithmetic.

1. Define the following:—Factor, prime number, measure, least common multiple. Resolve 87780 and 12350 into prime factors, and from these determine the greatest common measure and the least common multiple of the numbers.

2. If the hind wheel of a carriage is 16 ft. 4 in. in circumference, and the fore one 12 ft. 9 in., how many more revolutions will the one make than the other in going 1 mi. 1 fur. 1 per. ?

3. A spent $\frac{2}{3}$ of his money on Monday; $\frac{2}{3}$ of what he had left on Tuesday; and $\frac{2}{3}$ of what he now had on Wednesday; he then had \$2.50; how much had he at first?

4. Simplify $\frac{13\frac{2}{3} \times \frac{2}{3} \times \frac{0}{1\frac{1}{2}}}{\frac{2}{3} \text{ of } 1\frac{1}{5} \times 1\frac{1}{8}} \times \frac{\frac{1}{2} + \frac{1}{3} + \frac{1}{6} + \frac{1}{2}}{\frac{1}{2} - \frac{1}{3} + \frac{1}{6} - \frac{1}{2}}$.

5. If 2 t. 15 cwt. 2 qr. of coal cost \$18.50, find the cost of 3 t. 17 cwt. 95 lbs.

6. What is the least number that must be added to 946974832875 so as to render it exactly divisible by 93758?

7. Multiply $\overline{\text{VCMLXIV}}$ by $\overline{\text{VMMCMXCV}}$ and write the product in Roman numerals.

8. Find the amount of the following bill of goods:—

13 lbs. sugar at 11 cts. per lb.

$1\frac{1}{2}$ gal. vinegar at 50 cts. per gal.

$2\frac{1}{2}$ pails plums at 40 cts. per pail.

$3\frac{1}{4}$ lbs. cheese at 16 cts. per lb.

$\frac{1}{2}$ yds. cotton at 12 cts. per yd.

$3\frac{1}{2}$ yds. cloth at \$2.25 per yd.

1 pair of boots at \$3.50 per pair.

Grammar.

1. Define inflection. What parts of speech are not inflected? Name the inflections of each part of speech inflected.

2. Inflect the following nouns:—John, horse, ox; adjectives:—Many, tall, numerous; pronouns:—It, who, I.

3. Correct the following, if necessary, giving reasons for making the changes:—

(a) He has got to go.

(b) The king of France or Russia was to be the umpire.

- (c) We were all setting round the fire.
 (d) Adversity both taught you to think and to reason.
 (e) Whom did he speak to? It was to you he spoke.

4. Write two sentences containing *that* used

- (a) as a relative pronoun ;
 (b) as a conjunction ; .
 (c) as a distinguishing adjective ;
 (d) as a demonstrative pronoun.

5. Distinguish between lie and lay ;
 sit and set ;
 rise and raise ;
 fall and fell ;

State the principal parts of each verb ; also the incomplete (present) participle ; and write the future indicative of lie and fell.

6. Parse—"Shakspeare has united the powers of exciting laughter and sorrow not only in one mind, but in one composition."

Geography.

1. Define the following terms:—Zone, Tropic of Cancer, parallels of latitude, plateau, basin of a river, estuary, and canal.
2. Draw an outline map of Asia and mark on it the following:—Ganges, Obi, Mekong, Formosa, Ceylon, Corea, Romania, Cambay, Bosphorous, Cabool, Calcutta, Bombay.
3. A ship leaves Montreal for Calcutta ; if it calls at Liverpool and Marseilles name in order the waters through which it would pass.
4. Name the cities of each province of the Dominion, beginning with the most eastern one and proceeding in order westward.
5. Where and what are the following:—Philadelphia, Vesuvius, Race, Clear, Cork, St. John, Finland, Crimea, Trent, Manitoulin, Horn, Saguenay, Port Dalhousie, Rice, Rideau ?
6. Name the counties of Ontario
 - (a) which border on two boundary lakes ;
 - (b) which border on a boundary river.

English History.

1. Write a short account of the conquest of England by William the Conqueror ; how was the land owned before and after the conquest ?
2. How did the United States become an independent country ?
3. State what you know about Thomas à Becket, Simon de Montfort, John Hampden, Duke of Marlborough, Lord Nelson, and Cromwell.

4. State how Canada came into the possession of Great Britain; who were the chief commanders on each side, and by what treaty was the war closed.
5. Write a brief account of the Magna Charta, Petition of Rights, and Habeas Corpus Act.
6. How did England and Scotland come to have one ruler? and one parliament?

EXAMINATION PAPERS

SUITABLE FOR

THE INTERMEDIATE EXAMINATION.

Arithmetic.

1. *A* and *B* begin business together; *A* gives $\frac{3}{5}$ of the capital. At the end of the first year they have made a net profit of $3\frac{1}{2}\%$; at the end of the second a net profit of 5% ; at the end of the third they are bankrupts and can only pay 50 cents in the dollar. The remaining money is \$21,735; how much did each contribute?

2. *A*'s income from money invested in Dominion five per cent. stock is \$1200; he sells out at $101\frac{3}{4}$ and invests in four per cent. stock at $80\frac{3}{4}$. How will his income be affected, brokerage on each transaction being $\frac{1}{8}\%$?

3. The diameter of the fore wheel of a carriage is 3 feet 6 inches, and that of the hind one 6 feet 2 inches. If two nails, on the outside of each wheel, touch the ground together, in what time will they do so again, allowing the circumference to be $3\frac{1}{2}$ times the diameter, and the rate of travelling $6\frac{1}{2}$ miles an hour?

4. Simplify
$$\frac{\$1.92 - 24\% \cdot 00004562625}{\$ \cdot 81 + \% \cdot 03}$$
.

5. What is the weight of a cylinder of iron closed at both ends, 18 in. in diameter and 3 ft. 2 in. long, the iron being one inch thick, it being known that the sp. gr. of iron is 7.7 and a cubic foot of water weighs 1000 oz.?

6. What per cent. payable quarterly is exactly the same as 8% payable annually?

7. Sent my agent 5000 bu. of wheat which he sold at \$1.20 per bu. on a certain commission. He invested the balance, after deducting his 2 coms., in silks; the second com. was at the rate of 4% . If the two coms. amounted to \$500 at what rate % was the first charged?

8. The ready money price of a book at a bookseller's who allows mercantile discount for ready money is \$4.50 and the credit price \$4.75; what ought the credit price to be in order that, while charging the same ready money price, he may allow twice the rate of discount?

9. Two trains, 120 ft. and 150 ft. long respectively, are moving with uniform velocities on parallel rails in opposite directions and are observed to pass each other in 3 seconds; but when they are moving in the same direction their velocities being the same as before, the faster is observed to pass the other in 10 seconds, find the rate in miles per hour at which each train moves.

10. What vulgar fractions are reducible to terminating decimals? Before reducing a fraction to a mixed repetend how can the number of places in the finite part of the repetend be determined without dividing? Assuming the rule for reducing a pure repetend to its equivalent fraction, investigate the process for reducing a mixed repetend to a fraction.

Algebra.

1. Define and apply, by examples, the following terms:—Independent equations, symmetrical quantities, homogeneous quantities, like dimensions.

Simplify $ab - [(a+c)b - 3ac - \{ab - 2c(a-b)\}]$.

2. Examine the principles upon which the rules of addition and subtraction of algebraical quantities are founded.

Add together $4(x^2 - \frac{y^2}{5} - 2xy)$ and $\frac{xy}{3} - 7(x^2 - y^2 - \frac{xy}{5})$.

3. Give a definition of multiplication which will apply to fractions.

Perform the following multiplications:—

$$(1). (x^2 - 2x + 3)(x^2 + 2x + 3).$$

$$(2). (x^m - 2y^n)(x^m - y^n).$$

$$(3). (x^m + ax^m - b)(x^m - ax^m + b).$$

$$(4). (a^{\frac{1}{2}} + b^{\frac{3}{5}})^2 (a^{\frac{1}{2}} - b^{\frac{3}{5}}).$$

4. Perform the following divisions:—

$$(1). (12x^4 - 192) \div (3x - 6).$$

$$(2). (2 \cdot 091x^3 + 9 \cdot 22x^2 + 3 \cdot 694x - 1.2) \div (-51x + 2).$$

$$(3). (x^2 + x^{-2} - 2) \div (x^2 - x^{-2} + 2).$$

5. State and prove Horner's method of division, and apply it to the following:—

$$(a^2 - 4a^4 + 7a^3 - 5a + 6) \div (a^2 + 5a - 4).$$

6. Define the terms "Measure" and "Greatest Common Measure." State and prove the rule for finding the greatest common measure of two compound algebraical expressions. Find the G. C. M. of the quantities:

$$x^4 + 4(x^3 - 30) - x(18x + 104), \text{ and}$$

$$x^4 - 10(x^3 + 12) + x(24x + 36).$$

7. Investigate a rule for finding the square root of a compound algebraical quantity, and find the square root of

$$x^{2p} + 9x^{-2p} - 4x^{4p} + 4(x^{2p} - 3x^{-2p}) + 6.$$

8. State the principles, or axioms, used in the solution of equations.

Solve the following equations :—

$$(1) \frac{x-1}{x^2+1} = 4 + \frac{x^2-1}{2}.$$

$$(2) x(bc - xy) = y(cy - ac) \\ xy(ay + bx - xy) = abc(x + y - c).$$

$$(3) \frac{7+x}{7-x} + \frac{7-x}{7+x} = \frac{29}{30}.$$

9. Two persons *A* and *B*, can perform a piece of work in 16 days. They work together for 4 days, when *A* being called off, *B* is left to finish it, which he does in 36 days more; in what time would each do it separately?

English Grammar.

1. Show that the part of speech to which a word belongs depends on its use in the sentence.

What parts of speech may *that*, *but* and *what* be? Give sentences illustrating their use.

2. The verb "to be" is used both as a principal and an auxiliary verb. Give examples of all its uses, being particular to state the purpose for which it is used.

3. General terms are of Classic, while specific terms are of Anglo-Saxon origin. Illustrate the truth of this statement.

4. Correct the following when necessary, giving reasons :—

(a) I am very pleased.

(b) Every one of you should try your best.

(c) It lies between either you or your brother or your sister.

(d) The crowd were unusually quiet.

(e) Boys are of the masculine gender.

(f) Those kind of books are better than these kind.

(g) Neither of the books are authorized.

5. Explain the uses of the word *self*.

6. What different ways are employed to express the plural in English? State precisely what is peculiar in the words *children*, *kings* and *children*.

7. "Now, *man* to man, and steel to steel,
A *Chieftain's* vengeance thou shalt feel."

(a) What kind of a phrase is *man to man*.

(b) Parse the words in italics.

(c) Distinguish between phrase and clause.

8. Distinguish between the following :—

- (a) The king's picture. The picture of the king.
- (b) The Lord's day. The day of the Lord.
- (c) I have little money. I have a little money.
- (d) John loves James better than him. JOHN loves James better than he.
- (e) The lion's mane. The mane of the lion.

9. Decline the relative pronouns. Give rules for their correct use. When must *that* take the place of *who* and *which*?

10. "Now, *truce, farewell!* and, ruth, begone!
 Yet think not that by thee alone,
 Proud chief, can courtesy be shown;
 Though not from copse, or heath, or cairn,
 Start at my whistle clansmen stern,
 Of this small horn one feeble blast
 Would fearful odds against thee cast.
 But fear not—doubt not—which thou wilt—
 We try this quarrel *hilt* to hilt.'
 Then each at once his falchion drew,
 Each on the ground his scabbard threw,
 Each looked to sun, and stream, and plain,
 As what *they* ne'er might see again;
 Then foot, and point, and eye opposed,
 In dubious strife they darkly closed."

- (a) Give the etymology of chief, falchion, plain, ne'er, dubious.
- (b) Parse the words in italics.
- (c) Analyze the last six lines.
- (d) Note any false syntax in them.

English Literature.

1. "Each canto of the 'Lady of the Lake' is introduced by one or more stanzas in the Spencerian metre."

Describe the Spencerian stanza.

Who are the chief writers using this metre?

What is the prevailing verse in this poem?

2. Sketch the course of events which led to the meeting between Fitz-James and Roderick at Coilantogle Ford.

3. "No poet ever equalled Scott in the description of wild and simple scenes and the expression of wild and simple feelings."—*Hutton*.

Quote any passages which would illustrate the truth of these lines.

4. Sketch the life of Scott, introducing dates where you can.

5. Draw an outline map of the part of Perthshire in which the scenes described took place. Show the position of the following :—Trossachs, Lochs Katrine, Achray and Vernacher, Coikantogle Ford, Ben Venue, Ben Ledi, River Teith, Stirling.

6. "Fleet foot on the Correi.
Sage counsel in cumber,
Red hand in the foray,
How sound is thy slumber."

(a) Explain the meaning of Correi, cumber and foray.

(b) Scan these lines—name the metre.

7. "Scott and Byron afford striking examples of the two kinds of description. These two men of genius belonged to the same school of literature, and wrote on kindred themes ; but Scott is objective, Byron subjective."

Explain the terms "objective" and "subjective" as applied to poets, giving as many examples of each as you can.

8. Name the figures in the following lines :—

- "A howling wilderness."
"Can gray hairs make folly venerable?"
"Many men of many minds."
"Thy rod and thy staff they comfort me."

English History.

1. When did the Romans first enter Britain? When did they finally leave it? Mention some of the chief benefits derived from their occupation.

2. Describe the events which seated a Danish dynasty on the English throne at the beginning of the eleventh century.

3. How and when did England first gain a footing in Ireland?

4. From what occasion do you date the origin of the House of Commons in its present form? What kinds of Assembly were there in earlier times out of which it may be supposed to have grown?

5. It has been said that the Tudors knew when to give way, and the Stuarts did not know. Is this statement borne out by facts?

6. Account for the popularity of Charles II., and the unpopularity of William III.

7. Give the dates and results of the most important battles fought between Charles I. and his Parliament, and a description of one of them.

8. Trace the descent of Queen Victoria from Henry VII.

9. State briefly the cause which led to the "War of 1812." Name the principal battles fought during the war and the leaders on each side.

10. What was the cause of the Rebellion of 1837? Name the principal persons concerned in it, and give a short account of any one of them.

Geography.

1. What causes the succession of the seasons? Is the sun north or south of the equator at the present time, and how far?
2. What are zones? How is the position of the lines which mark their boundaries determined?
3. Name the various oceanic currents, and state in what way they affect climate. Give examples.
4. Draw an outline map of Europe, and insert the names of the chief seas, capes, and mountain chains; trace the course of the Rhine, Seine, Tiber, Vistula, and Volga; and mark the position of Paris, Tours, Berne, Christiania, Naples, Ulm, Augsburg, Talavera, Trieste.
5. Name the States of the American Union that border on each of the great lakes, those that border on the Gulf of Mexico, and those that lie west of the Mississippi. Trace the course of (1) the Ohio, (2) the Missouri, (3) the Potomac.
6. Name the counties of Ontario, (1) that border on Lake Erie, (2) that border on the St. Lawrence. Trace the course of the Grand River, Red River, and the Saskatchewan.
7. Name the principal islands of Europe, and state to whom they belong. Name the West India Islands that belong to Great Britain.
8. Name the counties of England (1) that border on the Thames, (2) that border on the English Channel, (3) that border on Wales.
9. Several Asiatic rivers rise in Thibet. Name them, and trace them to the sea.

Statics.

1. Give definitions of the following:—(1) the “resultant” of two or more forces, (2) the “components” of a force, (3) the “tension” of a string.
2. Enunciate the parallelogram of forces, and supposing it proved as respects the direction of the resultant, complete the proof as respects the magnitude of the resultant.
Two forces, one of which is double the other, act upon a particle in directions making with each other an angle of 120° ; find their resultant.
3. Show how to find geometrically three forces, which, acting at a point in given directions, will be equivalent to one given pressure acting at the same point.
4. A force of 30lbs. in a direction making an angle of 60° with a horizontal line is the resultant of two forces which make angles of 45° and 120° , respectively, with same horizontal line; find the magnitude of these forces.
5. AB and BC are two uniform beams united by a hinge at B , and resting on walls at A and C . A weight of 100 lbs. is suspended from B , and the weight of each beam is also 100 lbs. The beam AB makes with the vertical an angle of 45° , and the beam CB an angle of 30° ; find the horizontal thrust at A and C , and the pressure on the walls.
6. Define the moment of a force about a point or an axis to which its direction is perpendicular.

State the conditions necessary and sufficient for equilibrium when forces act in one plane on a rigid body.

A uniform beam AB , whose weight is W , rests in equilibrium between a vertical wall BC and the horizontal plane AC , both smooth; CE is a string without weight, attached to a point E in the beam. If $BAC=45^\circ$, and $ACE=30^\circ$, find the tension of the string.

7. Define the term "centre of gravity;" and show how to find practically, the centre of gravity of an irregularly cut piece of cardboard, proving the propositions on which your method depends.

The sides of a uniformly heavy triangle are $3a$, $4a$, $5a$, respectively; find the centre of gravity of the remainder after the inscribed circle is removed.

8. A uniform straight lever is sustained on a fulcrum at the middle point, and is kept at rest by two given weights; where must they be placed in order that the distance of the one from the fulcrum may equal the distance of the other from the extremity? And where must the fulcrum be placed, if the position of the weights be reversed?

Chemistry.

1. Define the following terms, giving examples:—Atom, molecule, atomic weight, molecular weight.

2. Distinguish between a *chemical compound* and a *mechanical mixture*. Why is the atmospheric air declared to be a mixture and not a compound?

3. What is meant by the *atomicity* of an element? Give the atomicity of as many of the non-metallic elements as you can.

4. How would you demonstrate, experimentally, the composition of water and air?

5. I have four vessels containing, respectively, nitrogen, hydrogen, nitrogen dioxide, and marsh gas; give a precise account of the nature of any result observed upon mixing oxygen with each of these gases, and of the results produced on introducing a lighted taper into the several mixtures.

6. What is the cause of flame? Describe the construction of the flame of a candle, or of a spirit lamp, explaining why the former is luminous and the latter not; and state what means you would resort to for increasing the luminosity of a flame.

7. By heating coal in a retort, a mixture of the following gases is obtained:—Olefiant gas, light carburetted hydrogen, carbon monoxide, carbon dioxide, sulphuretted hydrogen, and ammonia; give the composition, and a brief statement of the properties by which each of these gases is distinguished.

8. What is a crith, and how is it employed by chemists?

9. From the percentage analysis of a compound how could you determine its formula?

A body yields by analysis, 43.75 per cent. of nitrogen, 6.25 per cent. of hydrogen, and 50 per cent. of oxygen; what is its formula and name?

NOTES, QUESTIONS, DISCUSSIONS OF IMPORTANT POINTS, ETC.

E.—English Grammar.

Students are invited to send to the publishers answers to the following:—

1. Discuss the use of *need* in the following lines:—

What need a man care.—*Shakspeare*.

One need only read.—*Pope*.

To fly from, need not be to hate mankind.—*Byron*.

Britannia needs no bulwarks.—*Campbell*.

2. Explain fully the meaning of the following lines:—

For thus spoke Fate, by prophet bred

Between the living and the dead.

—*Lady of the Lake, Canto V., stanza xiii.*

3. Parse *shall* in the following sentences:—

I shall come.

Thou shalt not steal.

The meteor flag of England shall yet terrific burn.

EE.—Mathematics.

1. The solution of the following simultaneous equations is often asked for:—

$$\left. \begin{array}{l} x^2 + y = 7 \\ y^2 + x = 11 \end{array} \right\} \dots\dots\dots (1)$$

$$\left. \begin{array}{l} x^2 + y = 7 \\ y^2 + x = 11 \end{array} \right\} \dots\dots\dots (2)$$

FIRST SOLUTION.

- (1) By adding (1) and (2), we have

$$x^2 + x + y^2 + y = 18;$$

$$\therefore x^2 + x + \frac{1}{4} + y^2 + y + \frac{1}{4} = 18 + \frac{1}{2} = \frac{74}{4} = \frac{25}{4} + \frac{49}{4};$$

$$\text{or } (x + \frac{1}{2})^2 + (y + \frac{1}{2})^2 = (\frac{5}{2})^2 + (\frac{7}{2})^2.$$

Each side being the sum of two squares, it only remains to ascertain to which does the $(\frac{5}{2})^2$ belong.

The square of x added to y gives a smaller number than the square of y added to x . It is evident, therefore, that $x < y$. Or thus—

$$x^2 + y < y^2 + x;$$

$$\therefore x(x-1) < y(y-1);$$

$$\therefore x < y.$$

Hence, $(x + \frac{1}{2})^2 = (\frac{5}{2})^2;$

$\therefore x = 2.$

And $(y + \frac{1}{2})^2 = (\frac{7}{2})^2;$

$\therefore y = 3.$

SECOND SOLUTION.

$x = 11 - y^2;$

$\therefore x^2 = 121 - 22y^2 + y^4.$

Substituting this in the first equation, we get

$y^4 - 22y^2 + y + 114 = 0,$

$y^4 - 3y^3 + 3y^3 - 9y^2 - 13y^2 + 39y - 38y + 114 = 0,$

$y^2(y - 3) + 3y^2(y - 3) - 13y(y - 3) - 38(y - 3) = 0,$

$\therefore y - 3 = 0,$

$\therefore y = 3.$

$y^2 + x = 11,$

or $9 + x = 11;$

$\therefore x = 2.$

THIRD SOLUTION.

$x^2 + y = 7,$ or $y - 3 = 4 - x^2 \dots \dots (1)$

$y^2 + x = 11,$ or $y^2 - 9 = 2 - x \dots \dots (2);$

that is, to the unknown squares are attached the largest squares found in the known quantities.

$4 - x^2 = (2 + x)(2 - x);$ hence from (1), we have

$\frac{y-3}{2+x} = 2-x = y^2-9 \dots \dots (3);$

or $y^2 - 9 = \frac{y}{2+x} - \frac{3}{2+x};$

$\therefore y^2 - \frac{y}{2+x} = 9 - \frac{3}{2+x};$

$y^2 - \frac{y}{2+x} + \frac{1}{4(2+x)^2} = 9 - \frac{3}{2+x} + \frac{1}{4(2+x)^2};$

$y - \frac{1}{2(2+x)} = 3 - \frac{1}{2(2+x)};$

$\therefore y = 3;$

substituting, we find $x = 2.$

Now will some of our readers solve the following :—

$$\left. \begin{array}{l} x^3 + y^2 = 73 \\ x^2 + y^3 = 43 \end{array} \right\}.$$

11. Find the condition that the equations

$$\left. \begin{aligned} ax^2 + bx + c &= 0 \\ a'x^2 + b'x + c' &= 0 \end{aligned} \right\}$$

may have (1) one root in common; (2) both roots in common.

(1) The roots of the given equations are

$$\frac{-b \pm \sqrt{(b^2 - 4ac)}}{2a}, \text{ and } \frac{-b' \pm \sqrt{(b'^2 - 4a'c')}}{2a'}$$

If the equations are to have one root common we must have

$$\frac{-b \pm \sqrt{(b^2 - 4ac)}}{2a} = \frac{-b' \pm \sqrt{(b'^2 - 4a'c')}}{2a'}$$

which, after transposing, squaring, etc., gives

$$(ac' - a'c)^2 - bb'(ac' - a'c) + b^2c'a' + b^2ca = 0.$$

The following is the more usual solution of this question:—

Suppose that x is the common root, then x satisfies both equations, multiplying the first c' and the second by c , and subtracting we have

$$\begin{aligned} (ac' - a'c)x^2 + (bc' - b'c)x &= 0, \\ \text{or } (ac' - a'c)x &= (b'c - bc') \dots \dots (1) \end{aligned}$$

Again, multiplying the first by a' and the second by a , and subtracting, we have

$$(a'b - ab')x = ac' - a'c \dots \dots (2).$$

Dividing (1) by (2), and simplifying, we have

$$(ac' - a'c)^2 = (a'b - ab')(b'c - bc').$$

(2) If the equations are to have both roots common, we must have the sum and product of the roots of the first equation respectively equal to the sum and product of the roots of the second equation; now the

$$\begin{aligned} \text{sum of roots in the first equation} &= -\frac{b}{a}, \text{ product} = \frac{c}{a} \\ \text{“ “ “ second “} &= -\frac{b'}{a'} \text{ “} = \frac{c'}{a'} \\ \therefore \frac{b}{a} &= \frac{b'}{a'}, \text{ and } \frac{c}{a} = \frac{c'}{a'}, \end{aligned}$$

which may be written symmetrically

$$\frac{a}{a'} = \frac{b}{b'} = \frac{c}{c'}$$

thus showing that the second equation must be deducible from the first.