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· · · EDUCATIONAL WEEKLY,

GRIP OFFICE, TORONTO.

TORONTO, JANUARY 28, 1886.

WE notice in some of our exchanges a revival of the old discussion upon the injustice of the Legislature giving large aid to high schools and collegiate institutes, and comparatively less aid to public schools. Speaking in round numbers the amount granted by the Legislature to public schools is \$250,000; to high schools and collegiate institutes,\$85,000. The number of public school pupils is 465,-000; the average number in attendance, 215,000. The number of high school and collegiate institute pupils is 12,000; the average number in attendance, 6,600. Calculating upon the average attendance, a public school pupil receives of legislative aid, \$1.17; a high school pupil, \$12.88. That is, a public school pupil receives but one-eleventh of the amount a high school pupil receives.

AT first sight this disproportion seems very wrong, and we do not intend to attempt to justify it. What the exact proportion should be can be but arbitrarily settled. There is no general principle that can be referred to to determine the matter. But the general principles upon which government aid is given at all, as a supplement to local effort,

are these: - First, to make the blessing of education general—to place education within the reach of poor as well as of rich; second, to regulate its quality, to control the work of education in such a way that the very best value shall be given to the people in return for their expenditure. We know of no other reasons why the central government should interfere with local authorities in the matter at all; but these are sufficient, because local authorities would not be always able, nor would they be always willing, to see to it that the education which they unaided would give to the people, would be available alike to rich and to poor, and would be of sufficiently good quality. By making the system general and provincial rather than allowing it to remain disintegrated, divided into an infinite number of local systems, the Legislature is able to secure these two advantages, general diffusion and excellence of quality.

But it so happens that in the matter of primary education the people generally are agreed as to its necessity. We mean that in the great majority of cases local authorities, reflecting the opinions of the people who elect them, are as much in earnest in making primary education accessible to all, as the Government of the whole country could possibly be. In primary education the reasons for the Government's interference in its administration are reduced to one, viz., the securing of general excellence of quality. If the legislative aid to public schools were entirely cut off to-morrow not one school in one hundred would be closed. Even this would be lamentable, but it is a small proportion; and the consideration shows us how universal with us has the belief in the necessity of free education become. But the continuance of the grant to public schools enables the Government to maintain its control of the system and thereby secure its general efficiency.

But respecting secondary education things are very different. In the first place, the usual laws of supply and demand do not hold in regard to it. There are very few communities where secondary education of good quality could be afforded, if it depended for its support alone upon the fees of those who are able and willing to pay for it. The history of education everywhere proves this conclusively. The great majority of our towns and villages could not provide any except the poorest; and even in large

towns and cities only the wealthy would be able to avail themselves of its benefits. And yet it is agreed to by wise thinkers all the world over that that nation is most blessed whose educational advantages, even the highest, are within the hope and reach of its humblest citizens-not without struggle and hardship it may be, but still within hope of attainment, by the very poorest. But leaving out of consideration the blessing a country possesses when its poorest sons may reasonably hope to be able to prepare themselves for any profession or station in life to which they think their abilities justify them in aspiring-leaving this out of consideration, we say, though we should not, for it is of incalculable importance, there still remains the necessity of the nation properly providing in its secondary schools for the instruction of the great body of its youth in the primary schools, that is—providing for the education of its vast army of teachers; and this necessity males it incumbent upon the national government to see to it that secondary education is almost as freely accessible and as generally diffused as elementary education. But secondary education is necessarily more expensive than primary education, and, as we have said before, is in far greater danger of being starved for lack of local support—the necessity for it being not so generally acknowledged as that of primary education, and, what is worse, public opinion in regard to it, especially local public opinion, being very subject to variation and whim, affected as local opinion often is, by the arguments of the iliberal or the illiterate, put forward either in self-interest or in ignorance-so that what the Government must do for secondary education, what with wise forethought and the approval of all patriotic people it must de, is far more, proportionately, than what it need do for primary education; hence, even if a high school pupil receives out of the public chest eleven times that which a public school pupil receives the disproportion is not at all out of the way.

It is for those who have faith in the virtue of education to assist in helping to keep public opinion right in this matter. It is not a question of high versus primary schools; but of higher education, of good quality, within the reach of the poorest and the humblest, versus higher education of indifferent quality, and that within the reach of none but the well-to-do.

Contemporary Thought.

Titk Journal of Education reports the most encouraging feature of the superior education in the South to be the great interest taken in the schooling of young women. There are one hundred and twenty-five schools for them, taught largely by women from the leading families of the South.

BALTIMORE's millionaires are "a good second" to those of Cincinnati. The Peabody Institute and the Johns Hopkins University are already known over the land; and Mr. Enoch Pratt's public library, which he is building and superintending, has already consumed \$1,000,000.—Detroit Fice Press.

The authorities of Cornell have succeeded in securing one of the brightest lights among Canadian university men. The Chair of Mental and Moral Science in that institution has been proffered to and accepted by Prof. J. G. Schurman, of Dalhousie University, Halifax. Dr. Schurman, although yet a young man, is one of the foremost metaphysicians of the day. It is to be regretted that so many of our distinguished Canadians are thus lost to Canada.—Knox College Monthly.

EDWARD EVERETT HALE, in discussing appetite in the *Chautauquan* for January, advances an original plan for promoting temperance habits among large bodies of workmen. Here it is, "Food, in particular, has much to do with this matter. If I owned a great factory where the men had exhausting work, I would have bouillon, or beef-tea, on tap, at the door when they went out and in. I am sure I should save, in the end, by the temperance of my workmen."

REV. DR. McCORDY has entered on his duties as assistant lecturer in Oriental Languages in University College. His appointment is likely to give great satisfaction. His eminent abilities as an Oriental scholar, and his long experience as a teacher, will invest the study of these languages with more interest and make it less of a drudgery than it has been. We shall expect our successors to know a good deal more about Hebrew than we did when we entered theology.—Knox College Monthly.

ONE of the many radical changes of opinion which have occurred in recent years among teachers relates to the practice of keeping delinquent pupils at their desks after school hours. Twenty years ago there were very few schools in which the practice did not prevail. Now the *Journal of Education* informs us that the practice is defenceless and that "all progressive teachers, most supervisors, all normal schools, all pedagogical literature, all physicians, are arrayed against the practice." It declares that with rare exceptions it is a failure as a punishment.—Current.

THE fact that President Cleveland made no reterence in his message to the subject of national aid to education has caused many writers for educational papers to censure him in bitter terms. It remains, however, for those who favor the Blair bill to make themselves felt in Congress this session. They promised the country last summer that they would be able to do this. There are said to be 5,600,000 illiterates in the land at the present time, and for this reason the supporters of the

Blair bill for the distribution of the surplus money in the treasury for the benefit of the ignorant, claim that the question of national aid to education is of vastly more importance than that of the tariff, of silver coinage, or of international copyright.—
Current.

EXPRESSION is what gives to music its paramount charm. Let vocalist and performer-but vocalist especially, and the remark extends to choral singing as well-consider, first, what is the central idea or feeling of what he is going to sing or play; let him try to throw himself into the mental attitude of the author of the words or music, as it may happen. Having once mastered that, let him then study the individualities or phrases by which that idea or feeling has been expressed, and if he is to sing, let him read and re-read the words till he is able to give them their due articulation and balance. All this done, then let him take up the music and see how he may best clothe the dominant thoughts and varying shades of suggestion with sound, keeping at the same time sound ever subservient to the sense. Thus, and thus only, will the practice of music, especially of song, be profitable to the performer himself or bring home to the hearer's heart or mind what the author intended .- Sir Theodore Martin.

ANOTHER popular delusion concerning the college course hinges on a common misuse of the word practical. It properly signifies effectual in attaining one's end. So, transferring the term to persons, we call him a practical man who habitually employs such means. A "practical study," then, is in reality a study which is calculated to effect the end we have in view in pursuing it. And since the end in view of a college study is purely and simply the development of the mind and character, any study is a practical study just to the extent that it is effectual for this end. And any study is a completely unpractical study, no matter, how useful it may be for other purposes, if it is ineffectual for this. The real virus of people's misuse of this word lies in their making it to mean, not effectual for one's end, whatever it be, but effectual for that particular end which to them happens to seem the chief end of man. If a man's one aim is to have a successful farm, he is apt to consider all studies unpractical that do not bear directly on agriculture. If the great object of another is to gain public office, to him that study alone seems "practical" which directly subserves this end. Accordingly, there are always found well-meaning persons, not conversant with educational affairs, who consider the best studies, and those which for college purposes are most practical, as being completely unpractical; and who will always be trying to crowd in upon its courses those so-called practical studies, which, for the ends the college has in view, would prove as unpractical as studies could be .- E. R. Sill, in Atlantic Monthly.

In the Italian and French operas, which, until Wagner's day, had been played throughout Germany, the whole stress is laid on the arias which the various artists are to sing. People go to such an opera to be amused, and, after hearing it, give no thought to the libretto nor to the composer, but talk only of the singers' voices; the opera itself is of little consequence; the people are only concerned with the singers. The artists themselves

look upon the operas simply as opportunities to show their voices to the best possible advantage. Wagner believed that an opera should have a noble aim. So in everything he has given us, there is some divine struggle going on between the characters of right and wrong, in which the right triumphs. As the contest progresses, we ourselves are lost in the characters before us, our noblest feelings are aroused and strengthened. Wagner believed, furthermore, that the subject and words of an opera were not less important than the music; and he has expended as much of his own spirit in writing the librettos of his operas as he has poured into his music. No note of the music is for show; every one interprets some word or idea that is in the words; and every thought and act of the character is interpreted in the music, even if it be so insignificant a circumstance as jumping up a bank or running down a flight of steps. The performers, too, are expected to love their work, and to sink themselves in their parts; they must cease to be themselves and be the characters they represent. So that in one of Wagner's operas, every one, down to the smallest person connected with it, is necessary to its production; poet, musician, artists, orchestra-all are great, for each can say, "but for me this could not be!"-" From Bach to Wagner," St. Nicholas for Janu-

ANOTHER very important custom in which newcomers have to be instructed is that of fagging. They are purposly allowed a fortnight's grace that they may carefully study the duties exacted of them. It is with fagging as with football and hare-andhounds. Its greatest days are past. Think of a boy having to warm three or four beds on a cold night by lying in them until the heat of his body had destroyed their chill, and then having to rise at four o'clock in the morning to run two miles to the Avon to attend to the fishing-lines of the sixthform boys, and then to be back in time for first lesson! Fancy his being obliged to form one of a team of four or twelve in harness, to be raced around the school-yard, or "close," by the præpostors of the Four-in-hand Club, and compelled to make flower-beds for the same mighty beings, having half a pewter spoon and a whole fork for his only garden tools, and the flowers to be supplied by fair means or foul! Yet these were a few of the services expected of fags in the days when "there were giants in the land," as a Rugby song says. Now they are treated with much more leniency. Only the sixth-form boys are allowed to have fags. The younger boys must wait on them at breakfast, tea, and supper, run their errands to the nearest pastry-cook shop, clean out their studies, attend to their wants in the dormitories, and sometimes "field" for them at cricket. As in several other public schools, when the sixth-form boy or prepostor wants anything, he calls out "F-a-a-g!" in answer to which call all the fagging boys must ren, the last to arrive having to do the work. It is but for a short time, fortunately, that fagging is really a serious and perhaps tiresome duty. For the rule is that during a boy's first term, he must run at the first call; during his second, he need only answer the second, and so on; so that at the end of his second school year he has comparatively little to do as a fag. - From "Schoollife at Rugby," in the December St. Nicholas.

Notes and Comments.

WE call the attention of our readers to the exceedingly useful things which appear in our department of "Methods and Illustrations."

WE learn from a correspondent that Mr. O'Connor, Head master of Lindsay High School, is making preparations to present to his pupils, by means of the oxy-hydrogen light, Doió's celebrated illustrations of the "Ancient Mariner." This is an excellent idea. Who will imitate it?

"OUR SPRING FLOWERS," by Mr. Wilkins, of Mount Forest, is a contribution to our columns which we trust our readers will appreciate. We have faith that if Mr. Wilkins were to set himself about it he could do for the study of natural science in Canada what Grant Allen is doing for science in England—that is, bring it within the reach of the unscientific and make it as popular as the reading of fairy tales.

In our notice last week of the new collegiate institutes we should have mentioned Owen Sound and Ingersoll, each of which began its existence with the opening of the present term. We wish for these schools the very best prosperity. Of high schools likely to be made institutes prominent mention is made of Clinton and Ridgetown, both of which claim to have all the necessary qualifications. Clinton has a long and excellent record. Ridgetown is a new school, but its development has been very rapid.

THE new wing to Wycliffe College, opened last Friday evening, has been erected, so we understand, largely from funds contributed by members of one family, that of the late William Hume Blake, Chancellor of Ontario; and to his memory will the building be permanently linked by an inscription to his name and worth placed in the college library. When men of means and culture thus contribute towards learning and religion, wealth and ability are blessings which none ever grudge their possessors. It is only where these are always used for selfish ends that the principles of Communism gain credit. We should like frequently to record similar generous acts.

SOME time ago we wrote somewhat strongly of the good which college professors might do if they deemed their learning and their ability as entrusted to them for the benefit of their pupils, and we urged the institution of courses of lectures to be given by them which should be accessible not only to undergraduates but to the public generally. We are glad to notice that the Trinity College authorities are pursuing a plan similar to that we recommended. Last Saturday afternoon they inaugurated a

course of lectures, the first being given by Rev. Professor Clark upon "Charles Kingsley." Among the lecturers chosen are Professor Hutton, of University College, and Principal Grant, of Queen's.

THE Mail has been calling attention to the many Canadians whose ability and genius have gained for them recognition and, unfortuvately for Canada, permanent engagements in Britain, the United States, or elsewhere. To speak only of those successful in literature and science, there are :- Professor Schurman, lately appointed to Cornell University; Professor Hartt, also a professor in Cornell. who was chosen by Dom Pedro to be the chief of the Imperial Geological Commission of Brazil, at a salary of \$10,000 a year, (obiit, 1878); George W. Marris, another professor at Cornell; Grant Allen, late of Kingston, on scientific subjects one of the most popular magazine writers of to-day; Rev. Dr. Gibson, late of Toronto, now of London, England, author of the "Foundations," a well-known work on the evidences of Christianity; Edison, the great electrician; and Professor Graham Bell, the inventor of the telephone.

In another column appears an appeal to the teaching profession of Ontario for assistance in establishing a permanent "Archivological Museum for Ontario." It is made by Mr. David Boyle, well known to most of our readers as a prominent educationist and an enthusiastic naturalist. Mr. Boyle was some time ago appointed to the curatorship of the Canadian Institute, a post for which his ability, knowledge and tastes, all eminently qualify him. We have not space at present to do more than express the hope that all teachers and inspectors will co-operate with Mr. Boyle in his endeavors to establish this museum. The relics of the past, the most valuable materials for a trustworthy history of our country, will soon be beyond preservation, if they be not at once carefully collected. Everyone knows of something which he might procure and add to this museum, some evidence of early French occupation, or Indian implement of war or the chase We shall revert to this subject, but in the meantime we express the hope that our readers will give the promoters of the museum what assistance may be in their power.

MESSRS. CASSELL & COMPANY, of London, New York and Melbourne, are undertaking an enterprise which merits commendation, and calls for assistance from all who love to see good literature easily accessible to the people. They are about to publish, in weekly instalments, a "National Library," which shall comprise the masterpieces of the best authors of every age of our literature. The selections are to be made by Henry Morley, LL.D., the well-known Professor of English Literature in University College, London. Professor Morley will not only be responsible

for the entire series, but will write an introduction to each number. The volumes will be octavos of about 192 pages each, and will be printed in clear, readable type, on good paper, and will be sold for ten cents each. If ordered by a year, 52 numbers will be sent post paid to any address for \$5. The list of selections as far as published is excellent. Nothing but the best facilities for production and publishing could warrant the undertaking of so apparently unremunerative an enterprise. We enter thus largely into particulars, because we think our readers will be pleased to know of this easy means of obtaining good literature. We intend to avail ourselves of the advantage offered, and have no doubt many of our readers will also do so, once having obtained information respecting it.

THERE bids fair to be a general discussion of the merits of the Tonic Sol-sa system of musical notation, and no doubt an attempt will be made to introduce the teaching of it into our schools—the claims of its excellence being based upon the success which has attended its introduction in England. Should this discussion take place it will be prosecuted with all the ardor with which the merits of controverted practices-allopathy versus homeopathy, for example—are always debated. Before the din of battle commences we should like to state our position, as perhaps it may be necessary to refer to it sometime. The Tonic Sol-fa system was luckily found and introduced as an escape from the tediousness and irrationality of the "fixed Do" system, which for many years dominated the teaching of vocal music in England. Its notation, though to our mind not very scientific, and very much restricted, answers the purposes of most singers who are not instrumentalists and do not desire to become such, and it is sufficiently easy to be readily understood. The success of the system, however, has been due to the recognition of the tonic principle rather than to the simplicity or intelligibility of its notation. On this continent the "fixed Do" system has never had many advocates. The ordinary notation has always been used; but instead of absolute pitch the tonic principle, with a "movable Do," has been made use of. The result to those so taught is that what knowledge of music one acquires in the study of singing, that knowledge is immediately available for instrumental purposes, and it puts its possessor en rapport with musical science as understood and professed all the world over. The Tonic Sol-fa system leaves its devotees in the position of those who might be able to read telegraphy easily enough, but who know nothing of ordinary script. And, moreover, it cannot be claimed for the Tonic Sol-fa system that it produces results superior to those which can be obtained by applying the tonic principle to the ordinary notation.

Educational Opinion.

OUR SPRING FLOWERS.

D. F. H. WILKINS, B.A., DAC, APP, SCI.

In every read at the late Convention of the Teachers of
North Wellington.)

DURING the past year the advocates of "science teaching" have gained decisive victories. In the first place, the changes in the programme of studies for teachers' certificates, somewhat unreasonable as they appeared last September, have brought Physics to the front as a compulsory subject. Secondly, the wise retention of Botany as a "bonus subject," which it is to be hoped the Hon. Minister of Education will see his way clear to retain, is a step forward, or at least not backward. Especially is this true to that teacher who, amid the glare, the greed, the glitter of modern life, and the perpetual "cram" for examinations, endeavors to direct the eyes and the minds of his students to the phenomena and laws of God's uni-Thirdly, in accordance with the suggestion of the eminently representative committee of teachers appointed by the Provincial Conventions of 1883 and 1884, Botany, Chemistry, and Chemical Physics, are now proposed as Optional Matriculation subjects at the University of Toronto; a step which we trust will be taken also by Trinity, Queen's and Victoria ere long. That matters present so favorable an aspect at present, is at any rate in part due to a most able article in the Canada Educational Monthly on this subject, by Principal Spotton, of Barrie Collegiate Institute, one of our leading educators. In this article it may be stated that preference is given to Botany as the fittest branch of science for commencing upon, reasons for which are obvious. The materials for its study lie all around us; we need no rare exotics, no green-house monstrosity for our investigations; the humblest wayside weed or sedge, or grass is sufficient; the outfit-a lens, a few needles set into penbolders or even into matches, a tin box for specimens, and some coarse brown paper for drying and pressing; and the two most excellent text-books, Macoun and Spotton's " Elementary Botany, Part I." and Spotton's "Elementary Botany, Part II"-the whole not costing over three dollars-can be prepared at short notice by anyone. The dried and pressed plants, properly mounted, serve for study in the winter season, and as drawing cards for pupils in this now important subject at all times. In the collecting of specimens we have "sport" without cruelty, pleasure greatly enhanced if two of opposite sexes, one young and fair, it is needless to say which one, not that your essayist speaks from experience (?) range together, hill and dale, swamp and plain. In the study of Botany not only is our inherent love of the beautiful increased, but in the details of structure we perceive Law and Order, Divine Plan, "a Hiding of His Power." Flowers, too, with ferns, grasses and mosses, serving to decorate God's Holy Altar, and thus to make the place of His Feet glorious, may be said to have a religious significance and teaching, which the Master Himself acknowledged when he said, "Consider the lilies of the field."

And here, before plunging at once in medias res, let a few words be said regarding the importance, the value, of the scientific method in teaching even where no physical science proper is taught. True, in this much has been said and done, but if one may judge from results, far more remains Le fore us-Normal Schools, Model Schools, "Normal Methods," educational journals, have yet much to do before the seven thousand teachers of Ontario carry into practice the very excellent theories so ably brought forward therein, which, by the way, are simply abbreviations, expansions, exemplifications of the one true way, the scientific way, of education. So much error, so much malpractice in education has resulted from ignorance or from neglect of this way, that this generation will grow old before it is thoroughly destroyed, if then. The experience of one in teaching is neither here nor there; and yet it will, at least, bear out the fact that this error, this malpractice, is the bere noir of every teacher. For example, one third-class teacher, a very attractive, engaging young lady of nineteen summers and a teacher of some months' experience, when asked the position of the schoolhouse where she taught, replied, "I do not know. But the top of the map is always north," or according to the text-book. Still further questioned, she actually took down a wall-map of, "the World in Two Hemispheres" and spreading it on the floor, endeavored to "place" the position by the arbitrary rule given above. Several other instances could be cited, showing how third, and even second class teachers, had prepared their geography without the slightest reference to fact, and only for the sake of "examination." And it will hardly be necessary for your essayist to dilate upon the incorrect speech, the harsh, uncouth pronunciation, the violation of every rule and principle of the grammar of our mother tongue, by, alas! only too many of those who have been under his care. Suffice it to say that only too many, not only now and here, but in each place where he has been stationed, skilled in the niceties of Milton, Burke, Scott, Gray and others, to say nothing of "Lazare Hoche," "Un Phil. ophe sous les Toits," "Der Belagerung von Antwerpen," etc., have been at the same time unable to write a decent composition, hardly able to read a newspaper fluently, utterly unable to enter a room with ease and grace, and when there to converse

with any approach to elegance, on the contrary, interlarding their few remarks with the very blunders which, as grammatical errors, they have corrected in the schoolroom. We have had change after change in the Examination Programme, experiment after experiment; each Minister has done as his advisers have suggested, and yet how little has been accomplished! And, not to weary you further, not to speak of Mathematical and Physical Science, may it not be reasonably asked, can legislation go further? Does not the responsibility in part at least lie at our own door? If little be now accomplished, is it not either through gross ignorance or gross carelessness regarding the true scientific method of teaching? Have we not, as a profession, in the past, at least, too often separated the actual, living, teeming world without from the (to the pupil) dry-as-dust world of the schoolroom and of the text-book within? Have not many of us dealt with our work only too often as if it were an abstract quantity to be somehow arranged and then-left behind us? And now to our subject.

[Norv.—Here followed a long extemporary description of the Hepatica, the Buttercup, the Marsh Marigold, the Pitcher Plant, the Blood-root, the "Squirrel Corn," the "Dutchman's Breeches," the Claytonia, the Tinnea, the Bunch Berry, the Trillium and the Adder-Tongue Lily, illustrated by living specimens and by blackboard drawings. The description is omitted for the sake of brevity.]

An interesting teleological fact which can hardly fail to strike the observer is, that many of our spring flowers are stemless, i.e., that they spring from an underground stem, and are carried on leafless stems or "scapes," often appearing before the leaves. Amongst others may be mentioned the Squirrel Corn, the Hepatica, the Blood-root. In enquiring the reasons for this, we are guided by the following considerations:—

- 1. The plant-food must be provided while "as yet the trembling year is unconfirmed," before the marvellous leaf-chemistry can transform the inorganic carbon di-oxide and water into living tissues. This food may be—
 - (a) Stored up in the seed-leaves.
 - (b) " around
 - (c) " in the root.
- (d) " in an underground stem or root-stock.

Compare, for illustration, a bean, a corngrain, a turnip and a potato. Methods (c) and (d) are adapted for the growth of biennial and perennial plants, gluten, starch, sugar, etc., being stored up so as to readily furnish food for the all-important task of reproduction. In other words, the plant is enabled to put forth its flowers and have them fertilized without the help of leaves, by

depending upon the food-supply of the root-

- 2. The early flowers are more generally borne on scapes to avoid the risk of total loss by death-dealing, destructive, late frosts. For if these come, as they do only too often, it is only the part above ground which is affected; and though this may be destroyed, a fresh growth may follow when the temperature is higher.
- 3. The flowers must appear early so as to early attract the eyes of the first-flying insects of the season and thus to secure for these first flowers the benefits of cross-fertilization. To be successful in the field they must stand out conspicuously against the green grassy background; their tints, blue. pink, white or yellow, must contrast markedly with the brown moist earth, or with its mossy covering. Thus on May 2nd of this year, a bright, clear, cold day with frosty night, the writer noticed a small orange butterfly visiting and fertilizing a cluster of white, pink and blue Hepaticas, the first of this season, not a leaf being visible, and yet the stamens already ripe. From among a clump of green ferns these stood out so as to readily attract the eyes of the insect, and thus ere a leaf had opened, the season's work, so far as that cluster was concerned, was done. How much protoplasm, starch, etc., had been taken up from the root-stock, now often the scapes had been cut down by frost, how often visited before, the writer cannot say.
- 4. The work of reproduction, involving much plant energy and being the work of the plant, having been accomplished, the minor though very important task of providing next year's food can now be done by the foliage-leaves on separate petioles.

A second interesting feature is that the early flowers, if large, are solitary, while if clustered are small. Thus the Trillium, the Adder-Tongue and the Blood-root have large and solitary flowers, while those of the Hepatica, the Dutchman's Breeches, and the Squirrel Corn are many and small. Here we may well infer that since only a certain fixed quantity of food is provided, it must be disposed of in one of two ways—either in furnishing few and large, or many and small flowers.

And closely allied to this is the curious feature of large flowers correlated to large leaves, always simple and often nearly entire, while small flowers are associated with small leaves, divided or dissected. Thus the leaf of the Trillium is large, deltoid and entire; that of the Adder-Tongue is large, lanceolate and entire; that of the Blood-root large, five to seven lobed; while that of the Hepatica is small and lobed, and that of the Squirrel Corn and of the Dutchman's Breeches, are many and multifid, i.e., much dissected.

This and the preceding feature seem to be peculiar to the spring flowers; as the season advances the exceptions to them become so many as to render the statements practically worthless. Nay, did time permit, it could be shown that in other latitudes, they hardly hold good even for early flowers.

Not to occupy too much time, let me direct your attention to one more thought. Already in early summer, some of the flowers whereof I have spoken are dead and gone; "their day is ended at noon." Already others are fading and dying, and soon they shall be no more. But they die because their work is done; and in dying they tell us that seven (that mystically rounded number) great facts-birth, growth, change, maturity, decay, death, dissolution-great first truths. are ever before us in the creation of God. Of us many to-day have reached the fourth of these seven great stages; and it may be that the sixth, without the afth, is awaiting some present—the sixth, that departure of the immortal spirit into what we call "the Land of the Shadows." Land of the Shadows? Yes, if night may thus speak of day; yes, if the polar winter may thus characterise the tropic summer; yes, if the mailed grub in the depths of the forest-pond may thus describe the free blue air of summer, the beautiful world around us, into which as a dragon fly he will some day ascend, to return no more to his pond below. Land of the Shadows? No; rather for us, the Land of Realities, though as yet unseen. And may it be for us all that when that change comes, while the material body is passing through the seventh and last stage, the Rest of Paradise may receive the spirit waiting "till that day break, and the shadows fly away," when

> "Soul and body re-united; Nothing henceforth shall divide, Waking up in God's own likeness Satisfied."

COMMON SENSE IN THE SCHOOLROOM.

W. L. MISPADDEN.

(Read before the Tennessee State Teachers' Association.)
COMMON sense is indispensable to success in any vocation.

The profession of teaching being of paramount importance, it is especially necessary in this. But why, it may be asked, do you place this profession the first in the scale of importance? Chiefly because of the nature of the material. The teacher works on material which is susceptible of development, transformation, and affections, and which is immortal. His work is not only for time, but for eternity, and will be co-existent with the Almighty Himself. Hence any other work than that dictated by common sense would be reprehensible, if not really sinful.

But, it may again be asked, have not teachers, as a class, a sufficiency of common sense? I answer, Yes. Except in rare cases

God does not create a human being and place him in the world without endowing him with a sufficient amount of common sense to carry him through life, if properly used. And the trouble with teachers frequently is not a want of this important article, but a failure to use in a proper moner what they have; and, I may add, this is the primary cause of a great majority of the failures made in the schoolroom. They thus fail to prove that they are the possessor of that which they have in abundance.

My purpose on this present occasion is to enquire how common sense manifests itself in the schoolroom—how the teacher may prove that nature has bestowed this upon him with sufficient liberality.

First, the teacher manifests his common sense by beginning at the right place in taking any branch. What would you think of the builder who, in constructing a house, would attempt to put on the roof before laying the foundation? You would certainly decide that he was sadly deficient in common sense-indeed, you would say that he was a fit subject for the insane asylum. With just about the same degree of common sense does the educator act who begins at the wrong place to teach any branch. For example, under the old regime the first task assigned the child on entering school was to learn the alphabet—all, from top to bottom. and from bottom to top. To acquire this required weeks - yes, months, sometimes. This was the driest and the most difficult of a child's school life. It also required a great exercise of faith on the part of the child, to assign the proper names to these letters without having a reason given. It is related that in one of our old-time schools a little boy, who knew none of his letters, went up to the teacher to recite his first lesson. "What is this?" asked the teacher, pointing to the letter A. "I don't know," was the reply. "That is A," continued the teacher. "How do you know?" asked the boy. This was a question which the teacher was not prepared to answer. After thinking a moment, however, he replied: "When I was a little boy I went to school, and my teacher told me that this was A." "How do you know but what he lied?" again asked the boy. This was a poser, and here the dialogue ended. That boy couldn't exercise faith sufficient to take the teacher's word, unless he was able to assign a reason: But in the new education, where the natural method is followed, the child is first taught to read, and learning the alphabet is left to take care of itself.

Also in teaching English grammar under old methods, instead of beginning with the analysis and synthesis of simple sentences, the plan was to teach the etymology of words and word parsing first, and afterwards to touch very lightly or wholly ignore the more important subject of grammatical analysis. This, too, being contrary to nature, greatly needed improving.

In the second place, the teacher manifests common sense by not adhering to antiquated methods. The old fogy thinks he must teach exactly as he was taught, and as his father and grandfather were taught, forgetting that we live in a progressive age, and that methods of imparting instruction have been commensurate with the general progress of the age. Doubtless some of our grandfathers were farmers and used ploughs with wooden mould-boards. Ought we, who are farmers, now to use the same kind of implement, simply because they did? Yes, if it is right to adhere to all old methods and reject every improvement as an innovation.

Again, common sense is indicated by not adopting every new method suggested. I have just said that teachers must be progressive, and seek continually the best methods, and I now say that they must be cautious in adopting new methods. Schools are differently constituted and teachers are differently constituted. What suits my school may not suit your school, and what suits your school may not suit my school. The methods that suit me may not suit you, and the methods that suit you may not suit me. It is the duty of the teacher to take advantage of any good suggestions he may hear, which he can adapt to his work, but h makes a fatal blunder when he attempts to adopt in toto all good methods that he may see exemplified, He must attempt to use only so much as he can assimilate in his work. When he goes beyond this he loses his personality, becomes a mere imitator, and consequently a failure.

In the next place, the teacher manifests common sense in never appearing before a class unprepared. He needs to read and study daily. If he takes classes through the same book forty times he never becomes absolutely perfect in it. Each time he ought to do better work than ever before. Whenever he concludes that what he doesn't know isn't worth knowing, he ought to quit teaching. He is too smart for a profession in which there is always room for improvement. Besides, if he habitually comes before his class unprepared, his pupils will soon find it out, and he will thus forfeit their confidence and respect.

Again, the teacher shows common sense by not riding a hobby. Once a young lady was telling me about studying mental philosophy. She said that her teacher spent an hour every day on that recitation. I asked if it was a large class, and if the teacher had many other classes to hear. She replied that she was all the one in that study, and that her teacher was crowded with classes; but that mental philosophy was a favorite branch with him, and that in consequence,

he gave it a large part of his time and attention. That teacher was riding a hobby to an alarming extent. Simply because this young lady happened to be pursuing a favorite study of his, he gave her one sixth of all his time in the schoolroom, to the neglect of half a hundred pupils who were studying more important branches. To have been enabled to pursue such a course, he must have left his common sense far in the background. Fellow teachers, if you are particularly fond of any one study, give it less attention than others. And if you dislike some branch to such an extent as almost to amount to hatred, give it more than its share of attention.

Again, the teacher manifests common sene by not talking too much or too loudly. Whenever a teacher in a common school, high school, or academy occupies the time of recitation by lecturing, he makes a grievous mistake. The true teacher does but little talking himself. His aim is to educate. To draw out. To induce them to think and to talk. Many a school has been literally talked to death. The pupils become so accustomed to the monotony of the teacher's voice that they do not heed it. Neither should the teacher talk too loudly. Continued talking in a loud, high tone is unpleasant. "As is the teacher, so is the pupil." The teacher of noisy, boisterous manners is sure to have a noisy school. The teacher of quiet manners and gentle speech is apt to have a well behaved school.

Again, the teacher shows that he has common sense by not scolding. If there is any place on earth where scolding is in order, I have failed to find it. Surely not at home, and as certainly not in the schoolroom. By continued scolding and fault-finding the teacher either completely discourages his pupils, causing them to sneak along with their heads down like whipped curs, and perhaps driving them from school, or he arouses their antagonism, and causes them to become rebellious and ungovernable.

Common sense is also indicated by not working dishonestly or tempting pupils to dishonesty. Some teachers are actually dishonest. They do not mean to be so, but nevertheless they are. Among the ignorant, school teachers are supposed to know everything, and they encourage the belief. Sometimes pupils ask them questions which they never were able to answer, and they pretend that they haven't time to answer just at that time, or that they know the answers well but can't think of them just then. Now, this is downright dishonesty. It is lying. A teacher who will act in this way is not entitled to respect, and he is sure not to have it long. If a question is asked and he is unable to answer, he should have the manliness, the honesty, to say, "I don't know." Very hard words to say sometimes, but good, honest words. He should tell his pupils that he is unable to answer that question to-day, but that he will try to look up the answer, and should ask them to assist him in finding it. Sometimes, too, by an unwise system of self-reporting he tempts his pupils to act dishonestly. He ought to be very careful, for he will not be held guiltless if he tempts one of these little ones to sin.

Again, the teacher shows common sense by the length of the lessons that he assigns. If the lessons are too long, the pupils either become discouraged and do not try, or they run over them hastily, acquiring only a superficial knowledge. If the lesson be too short, idleness and mischief is the inevitable result. Let the lesson be measured by the ability of the pupil of medium intellect; let the dull pupils of the class, who always need most attention and assistance, be aided and encouraged till they master it; and, if necessary, let the brightest pupils of the class take one or two additional studies, in order that their time may all be occupied, and they kent out of mischief.

Again, common sense is indicated by dealing kindly and respectfully with pupils. Harsh treatment and unkind words have discouraged and even driven from school many a timid child who by kindness and affection might have been retained and stimulated to noble effort. The intercourse between teachers and pupils should be mutually respectful. Kind and respectful treatment from the teacher usually secures a like return from the pupils. Further, it is the. teacher's duty to love his pupils. Love begets love, and a mutual affection between teacher and pupils goes far towards making the work of the schoolroom light. The hearts of the children readily respond to affection, and they will do anything for those they love. The teacher who possesses this key to the hearts of his pupils rarely has much trouble in the government of his school.

In the next place, the teacher manifests common sense by adapting his instruction to the wants of his class. First-grade pupils require first-grade instruction, and he acts wisely who recognizes this fact. When he is feeding little lambs he must not place the fodder too high.

Again, common sense is manifested by not making unnatural or unreasonable demands of pupils. "Follow nature" is always a safe rule for the teacher. It is unnatural to keep boys and girls in the same school day after day, week after week, and month after month, and forbid all communication between the sexes. God evidently intended boys and girls to talk with each other, and even play with each other sometimes; otherwise he would not have placed them in the same families: If He had intended that they should grow up to manhood and womanhood, having no communication with each

other, all the boys would have been born in certain families, and all the first in others. Do not misunderstand me. I do not mean that all restraint should be removed, for I think that boys and git's should have separate playgrounds in school. But I do not think it is right to attempt to prohibit all communication between boys and girls who are in the same school.

In some schools all the boys are required to declaim and all the girls to recite. In every school there are timid children who can hardly do this at all. Indeed, it is absolute cruelty to demand it of them, and common sense suggests that such children should be excused from such exercises. Again, I think it is unreasonable and unnatural to require little children to sit still in the schoolroom six hours in the day. Children are . naturally restless and active. They want to be in motion, and long confinement in one position is punishment which tends to plant in them early in life a distaste if not an absolute hatred of the schoolroom. The new education, recognizing this fact, allows to the little ones frequent change of position and employment, thus making the schoolroom a pleasant place for them.

Finally, common sense is indicated by not permitting the teacher to enact rules that he cannot enforce. For example, some teachers think that all communication during school hours should be prohibited. They fall into the error of making discipline the end of education instead of an important means of attaining a more important end. One will say on taking charge of a school: "I intend to have good order, if I have nothing else." He may succeed in having good order, and will certainly succeed in having nothing else. Good order is essential, but should be made subsidiary to culture -to education. I have seen only a few teachers who claimed to have reached that point in discipline where they had no communication, and, as a rule, were poor teachers, and generally succeeded in having "nothing else." I do not believe that such discipline is desirable. But if any desires such perfect order, he must have no doubt of his ability to enforce such a rule, before enacting that there shall be no communication. One rule disregarded brings all regulations into contempt, and if the teacher permits one of his rules to be broken with impunity, there is an end of all discipline.

In conclusion, fellow-teachers, if we in our work will be guided by that common sense with which an all-wise Father has endowed us, ever looking to Him for help, we may safely conclude that our success is assured.

—S. W. Journal of Education.

MR. STEVENSON and Miss Rodgers, of Prescott, have resigned. Mr. Raymond and Miss O'Brien will fill their places.—Prescott Telegraph.

" THE GOOD OLD TIMES."

[My Dear Sir,—I am very glad, indeed, to learn that an effort is being made in connection with the Canadian Institute to form an archaeological museum in Toronto. I hope whatever assistance inspectors and teachers throughout the Province can tender you in the matter will be gladly given. There are, no doubt, many points of interest in the early history of this country that cannot be fully developed except by the scheme you propose.

G. W. Ross.]

THE foregoing from the Minister of Education is as brief, pointed and comprehensive as anyone can desire. It may be, however, that many readers of the EDUCATIONAL WEEKLY are not aware of the movement to which the honorable gen leman's letter refers, and the present is an opportune season to offer a few remarks on the task which has been undertaken by the Canadian Institute.

What is proposed by this Society (incorporated in 1849, and therefore the oldest scientific boay in Ontario) is to undertake in a methodical manner the archivological survey of the whole Province, and to form a central museum of specimens illustrative of the life-history of the aboriginal people-including the Mound Builders, of whom unmistakable traces have recently been found within our borders. This, as a matter of course, will involve considerable expenditure of time, labor and money, but at the very outset, much may be done by way of collecting specimens, thousands of which are scattered about in farmhouses and in the hands of private collectors. It is just in this connection that inspectors and teachers may use their influence and best endeavors to aid the undertaking.

In some localities relics of the kind in question are much more numerous than they are in others, but they exist to a greater or lesser extent almost everywhere. All collections numbering fifty specimens and upwards will be labelled with the name of the donor, and as an incentive to pupils and teachers of public spirit, the name of the school may, if they so decide, be used to designate the specimens. It is only necessary that teachers of rural schools should keep this matter in view, by referring occasionally to the subject, and by inviting pupils to contribute to the general stock. If this were done there can be no doubt of the result, and surely it is not asking too much from the teaching fraternity, when the national and scientific scope of the work is taken into account.

None are better situated, none are better qualified, to engage in this task, requiring as it does intelligence, judgment and assiduity. In the future distribution of duplicate sets illustrative of what is yielded by the Province at large, and after the cases of the museum are replete with typical specimens,

schools presenting collections will count among the first to receive recognition.

Inspectors can also do a great deal in the course of their peregrinations about a county, and from them is expected not only assistance in the way of procuring specimens, but valuable information relative to localities in which ossuaries, old encampments, or other interesting sites exist. Correspondence from these gentlemen is, therefore, something to be desired, as it may lead in numerous instances to the discovery of important facts.

Too many traces of the "oldest inhabittants" are permitted to be obliterated, without any attempt to utilize the evidences for any scientific purpose. Historically, as the Minister of Education so pithily puts it, "there are many points of interest in the early history of this country that cannot be fully developed except by the scheme proposed," and teachers of all persons are among those most likely to record observations and to communicate with some central authority regarding the same.

It is therefore urged upon the seven thousand teachers of Ontario that they give this subject their most serious consideration, and the hope is further expressed that they will determine to do all within their power to comply with the desire of the Minister of Education, and, at the same time, to contribute their share towards the furtherance of an object that must appeal effectively to every intelligent and public-spirited citizen in our country.

DAVID BOYLE.

UNDER our present system of elementary teaching, no knowledge whatever bearing on the life-work of the people reaches them by our system of state education. The mere tools of education are put into the hands of children during their school-time without any effort being made to teach them to use the tools for any profitable purpose whatever, so they get rusty or are thrown away altogether-Books ought only to be accessories, not principals. The pupil must be brought in face of the facts through experiment and demonstration. He should pull the plant to pieces and see how it is constructed. He must vex the electric cylinder till it yields him its sparks. He must apply with his own hand the magnet to the needle. He must see water broken up into its constituent parts, and witness the violence with which its elements unite. Unless he is brought into actual contact with the facts, and taught to observe and bring them into relation with the science evolved from them, it were better that instruction in science should be left alone, for one of the first lessons he must learn from science is not to trust in authority, but to demand proof for each asseveration. -Sir Lyon Playfair, on Scientific Education.

70KON7O: THURSDAY, JANUARY 28, 1886.

HOW FAR SHALL TEACHERS CO-OPERATE FOR PURPOSES OTHER THAN EDU-CATIONAL?

The formation of a Teachers' Protective Association in the County of Perth (described in our issue of January 7) makes timely the question proposed above. If we say at the outset that our opinions respecting the matter are conservative, it is not for the purpose of discouraging any who may think otherwise, and we shall be glad to lend our columns to the discussion of the question from every point of view: and though we say we have little faith in a protective organization, we shall be glad to have our faith made stronger by arguments which we cannot gainsay.

Our position is, that the best protection the profession can secure is the elevation of the standard of admission to it. So long as education remains a national undertaking, that is, so long as the Provincial Government subsidizes local effort and thereby secures a ground for provincial control, so long must duly authorized standards of qualification of teachers be set up, and it is in insisting upon the gradual improvement of these that the profession will best protect itself.

The Government in this matter is always dealing with a dilemma. On the one hand it has to provide teachers for districts that are little able to remunerate a teacher lecently, or for districts where public opi ion is so little enlightened that there is no disposition to fairly reward a teacher for his work; on the other hand it is responsible for the general character of the education of the Province, and must see to it that the standard of qualification required of teachers advances with the progress of learning, and the improvement of the country in respect of wealth. On the one hand are the many clamoring for cheaper education and complaining of the cost of the education system, on the other are the few who see that education is necessarily expensive, that the best teaching is the cheapest, that the old standards must be continually replaced by higher ones. The central authority, therefore, must take a middle course and endeavor to satisfy these opposing views.

The attitude of the profession in this matter is not always in accordance with its true interest. Instead of influencing public opinion in favor of high standards of qualification and thereby strengthening the Government in its efforts to maintain an efficient educational service, it is very often found complaining of every step taken to elevate the professional standing of the teacher. Teachers of the third grade are far more numerous than any other, and in deference to public demands and the complaints of teachers who are interested in preparing candidates, the standard of their qualification is kept so low, the ingress to the profession made so easy, that from two to three times as many novitiates receive (non-professional) certificates of qualification every year as are necessary to supply the places that legitimately fall vacant; and the result is underbidding, the giving over of our schools to mere boys and girls, and the crowding out of the profession many who see that to remain in it will be against their best interests.

As we have before mentioned, we think the Government is remiss in its duty in not recognizing and rewarding the claims of teachers of the higher grades. The Government says to a third-class teacher, "You shall not retain your certificate longer than three years. You must go to a high school for a year and to a normal school for six months, and then you shall receive a certificate of higher grade. This will cost you something, but in the interest of the profession you must do it." Very good in itself; but the teacher so addressed reasons in this way: "This year and a half or two years of study will put me in possession of a second-class certificate, it is true, but in what better position shall I be then than now? So many new third-class teachers are admitted every year that, in competition with what they are willing to accept, the average school board will not recognize my superior certificate or my increased experience. I shall probably obtain something more than what a third-class teacher can get, but not enough more to pay me for my time, trouble and expense." So reasoning, he leaves the profession if by any chance he sees his way to do so; leaves it just when he is prepared to do good work in it. Now, if to every teacher of higher grade a certain amount per annum were guaranteed by Government, i.e., if, out of the legislative

aid to public schools, r certain proportion were devoted for the purpose of giving sections employing second and first-class teachers a fixed sum per annum more than what they would receive if they employed third-class teachers, there would be a constant demand for teachers of higher grade, in fact they would be engaged wherever possible.

We believe teachers can do much by cooperating to advance the status of the profession; to develop, exemplify and promote good methods of teaching; to insist on the due enforcement of the regulations respecting examinations and certificates; to expose fraudulent contrivances to gain certificates or recommendations; to support the hands of the inspectors in refusing extensions; to support the county boards of examiners in being strict in the admission of new teachers to the profession; and especially by co-operating to advance, by means of associations, reading circles, teachers' meetings, and so on, the status of the profession with respect to general intelligence, professional knowledge, and mental and moral culture. But beyond these ends we do not think much can be done. We do not think the usual methods of beneficiary institutions will work with teachers, scattered as they are over wide areas of country, and so unable to meet frequently for common counsel. And especially do we think that any attempt to interfere with the free action of trustee boards in filling vacancies, as proposed by the Perth Protective Association, will decidedly fail. It will be inoperative from the start.

So, whether teachers by co-operating can effect other than educational ends appears to us very improbable. Teachers have been urged again and again to combine for political purposes; i.e., for political purposes other than those of party. For example, it has been urged that if the 30,000 teachers of the State of New York snould combine they could decide who is to be President of the United States. We believe they might have done this in the last election, but they have not combined, nor do we think they ever will. Teachers are too well educated, and too well informed generally, and too independent in their opinions and habits, to form strong organizations for purposes other than educational.

We must say, however, that in England a society has been organized, the National Union of Elementary Teachers, with objects somewhat similar to those proposed by the Perth Protective Association—the support and administration of a benevolent fund, the maintenance of a provident society, and the support of an orphanage and orphan fund being principal ones. We believe that the conditions under which teachers labor are in England more favorable to the working of such an organization than they would be in Canada. But even the large and well-organized union referred to has failed to secure the co-operation of its members in matters which are not beneficiary or educational.

Teachers in England are governed by the "Code," for which Parliament is responsible. It has long been urged that if Parliament could avail itself of the presence of two or three practical teachers, legislation on elementary education matters would be sounder and wiser than it often The conferences of the National Union of Elementary Teachers again and again urged upon its executive the necessity of choosing candidates for representation in Parliament. As a result, at the recent election, five candidates came forward, three of whom, however, found it necessary to retire. One other pushed forward, relying upon himself, and was defeated. The fifth, Mr. Collins, who stood for Dulwich distr. 4, in London, was guaranteed his expenses by the executive of the Union, but he failed to receive that moral support from its members which is necessary to success. The requisite funds also came to him both meagrely and slowly. His election was "starved," and the Union, suffering from the chagrin of defeat, has to make up his expenses by a tax upon its members when it was supposed these would have been met by voluntary subscriptions. And now it is generally admitted that "party feeling is too strong to render direct parliamentary representation a possibility." And should the attempt be made in Canada we believe like apathy on the part of the greater number of teachers; would result in like discomfiture.

Although we have thus stated our fears of the success of a protective association we shall be very glad to have our fears removed, either by argument or by the citing of instances of success of which we may not have heard.

LORD TENNYSON has been appointed President of the London Library. This is a fitting position for the greatest of living poets, and as such the greatest living man of letters.

OUR EXCHANGES.

Wide Awake for January, in point of artistic and literary merit, is one of the best numbers yet published. The frontispiece, "Fleyd Ireson's Ride," is very pretty, and so are the illustrations by Merrill, Hassam and Sandham. Although primarily for young people Wide "resale is quite as interesting to grown folks as to them. (Boston: D. Lothrop & Company. \$3.00 a year.)

Tith Chautauquan for February contains "How to Live," by Dr. Edward Everett Hale: "Home Studies in Physical Geography," by Dr. Felix L. Oswald: "Religion in Art," by Professor W. T. Harris (a remarkable article); and 'How to Win, No. VII., "a breezy and entertaining exposition for girls of the "Decalogue of Natural Law," and many other excellent things. (T. L. Flood, Meadville, Po. \$1,50 a year.)

"THE Living Age for January 16 and 23 contains "Poetry, Politics and Conservatism," National Review; "The Story of the Bab, and Disestablishment and Disendowment," Contemporary; "Old Florence and Modern Tuscany, and the Poetic Imagination," Macmillan; "Reminiscences of an Attaché," Blackwood; "Frogs," Gentlemán's; "Smiles," Temple Bar; "Germany's Industrial Progress," Saturday Review; "Ordeals and Oaths," Antiquary; with instalments of "Fortune's Wheel," "Dr. Barrere," "Oh,—Madame!" "A Strange Temptation," and poetry. (Littell & Company, Boston. \$8.00 a year.)

The Magazine of Art for Feuruary is a charming number, and is ushered in by a poem from the pen of Austin Dobson, illustrated by the pencil of Randolph Caldecott. The first article is "Buckingham Palace," described so vividly with pen and pencil as to open one's eyes with wonder at so much grandeur. "David Neal's Struggles and Successes," is the most important and instructive article. Mr. Neal is a New England man by birth, but he owes his art education to Munich, of whose school of painting he is a worthy exponent. The examples of his work that are given by the engraver are most admirable. The ancient city of Chester is described by pen and pencil. The most noteworthy engravings are figures of Dante's "Beatrice" and Molière as "Julius Casar." There is an interesting paper on "Tables and Table Customs" useful to students of art as applied to furniture (New York: Cassell & Co. \$3.50 a year.)

BOOK REVIEW.

The King of the Golden River; or, the Black Brachers. A Legend of Styria. By John Ruskin, M.A. Illustrated by Richard Doyle. Boston: Ginn & Company. 1885. 57 pp. 35 cents.

Those who know anything (and who do not?) of Mr. Ruskin's inimitably charming style and purity of sentiment and elevated thought, will be glad that one other work by him has been put in type and made available to all children and "children even of larger growth." Written for the daughter of a friends twenty-four years ago, the "King of the Golden River" appears now for the first time in book form. The publishers have done their part well and given it twenty-one illustrations.

A Wonder-Book for Boys and Girls. By Nathaniel Hawthorne. Boston: Houghton, Mifflin & Company. 196 pp. 30 cents. Boards, 40 cents.

Wher Hawthorne, thirty-five years ago, put the classic tales which form the substance of the "Wonder-Book" into the semi-romantic modern form with which we are now most familiar with them although he laughingly said they would be at once recognized by the world, he could have little guessed what universal and enduring popularity they would secure. And they merit all their reputation. They were the first reading of our boyish years: and we turn to them ever and again with constant appetite and a hope, never disappointed, of rich injoyment. In their present form they are within the reach of pupils in our public schools to whom and to their teachers, and to all lovers of pure literature, we confidently recommend them.

A Lexicon of the First Three Books of Homer's Illiad; and of parts of Books IV., V., VI., NVIII. and NNIV., and of Book NNII. entire. By Clarence E. indee, A.M., Principal of Springfield (Mass.) Collegiate Institute. New York: D. Appleton & Company. 1886. 215 pp.

This lexicon is prepared for those parts of the "Iliad" commonly read in American preparatory schools. It is to be regretted that the author has not treated of the whole of the "Iliad," and so given to his work a completeness which in its present shape it lacks. This is not the place to discuss the merits and demerits of partial lexicons, yet in the case of this work the chief objections against their use have been admirably met, by giving a full treatment of each word and not merely its Homeric usage. Although necessarily the derivations of words cannot be explained very fully in a book of this sort, yet the definitions, ordinary derivations, compositions, etc., can be learned almost us well as from a complete lexicon. The proper names are briefly explained; and in the course of the book frequent references are made to Hadley's and Allen's Greek grammars. The mechanical execution is good throughout. On the whole the ordinary student of Homer will find this little lexicon very convenient and useful.

BOOKS RECEIVED.

Euripides' Bacchantes. Edited on the basis of Wecklein's Edition. By J. T. Beckwith, Professor in Trinity College. Boston: Ginn & Company. 1886, 146 pp. \$1.15.

Greek Inflection; or. Object Lessons in Greek Philology. By B. F. Harding, M. A., Teacher of Greek in St. Paul's School, Concord, N. H. Boston: Ginn & Company, 1886. 44 pp. 55 cents.

Easy Lessons in German; an Introduction to the Cumulative Method; adapted to Schools and Home Instruction. By Adolphe Dreyspring, author of the "Cumulative Method." New Vork: D. Appleton & Company. 1886. 103 pp.

Elements of Psychology; with Special Applications to the Art of Teaching. On the basis of "Outlines of Psychology." For the use of normal schools, high schools, reading circles, and students generally. By James Sully, M.A. New York: D. Appleton & Company. 1886. Part I. 130 pp. 25 cents.

Methods and Illustrations

For the EUCCATIONAL WEEKLY.

RATIONAL TEACHING.

IN exemplifying the principles advanced in the paper on the "Science of Education" (see EDUCATIONAL WEEKLY, Nov. 26 and Dec. 3), I shall adhere to practical methods used in the class-room.

Consider the subject of Addition as an illustration. After the students have been taught to add a few easy questions in addition, they should be directed to add questions made by themselves.

But is this all that can be made of addition? If so, is it not almost valueless as a mental training? The principles which underlie nature's methods require the teacher, if possible, to have the class analyze, compare, contrast, synthetize, generalize.

To do so let some such question as 7a +3a + 4a = 14a be given to the class, and others in which b, c + d, a + b - c, etc., are respectively substituted for "a." Noticing, by means of questioning or otherwise, the resemblance and difference between these questions and the original one, the class will be able to write the answer by inspection. and verify it by adding. Or if the answers, $14\dot{b}$, 14(c+d), $14(a+\dot{b}-c)$, etc., be given, the class will be able to write down the corresponding questions, viz., 7b + 3b + 4b, etc., by comparing the answers with that of the original question. The students will then be able to make questions of their own on the same general plan as indicated above.

The application of this method, greatly extended, to the more difficult examples in addition, affords a valuable exercise, and at the same time establishes the str by of Algebra on a broader basis than if we teach addition merely as adding.

Again, let us consider the theorem—If an algebraic expression which is a function of x be divided by x + a, the remainder is the same as the value of the expression when x + a = o. This theorem is one which should be thoroughly mastered, since it is frequently taken advantage of in the solution of problems, and, moreover, a particular case of it is used in factoring.

One method of teaching this principle is to state it as a rule, and have the class work examples to verify it. But Nature objects to this method so different from her own. She urges the teacher to allow the student to discover the principle.

To act in harmony with these instructions, the teacher might give several questions to the students, and require them to write out neatly the quotient and remainder on division, and the value found when in the dividend the divisor is made equal to zero. From the identity of the remainder and the value so found in each case, all the members

of the class will derive the principle without waste of time.

Some will believe the principle general in its application, but others will require further proof. In order to satisfy this demand, let each pupil test the principle in several original questions. Each member of the class will thus furnish three or four independent tests which will establish the truth of the theorem to the satisfaction of all. In a few cases the remainder and value will be different through some error of the students, but its correction will only enforce the proposition.

It might be well just here to give a question or two which, at first sight, would appear to be an exception to the rule, and invite the verdict of the class. The majority will hold to the theorem and the few doubters will be convinced by working the questions.

It only remains for the class to learn why the principle is true, and then apply it as may seem best to the teacher.

A. F. AMES.

For the EDUCATIONAL WERKLY.

THE STUDY OF HISTORY.

Ir it be true that literature is the immortality of speech, what is the character of that immortality which belongs to history? Could we not safely define history to be the immortality of action. In that great theatre upon whose stage king, diplomat and warrior strut their hour and then sink behind the scenes-it is action which history recordsit is action before the footlights of mankind which makes of deeds a very counterpart of the actors themselves, and photographs in true color and form every character of the play. History is a chronicle of life-its hopes and its fears, its failures and its triumphs, its camps and its courts, its peasar' and its king. But the concrete quality in history is action. Russia is making history on the Afghan frontier by her action; Gladstone is adding new pages to the history of England by his action; Parnell in his struggle to obtain Home Rule for Ireland, is virtually recording a new chapter of history by his action. History then is more than a journal of entries-a mere inventory of dry facts. In every well-designed play there is a plot. He who sees not the unfolding of the plot can interpret but vaguely the action of the players. Everything that pertains to the life of sovereignty, the life of a people, the life of the individual, is history, whether it be recorded dramatically, philosophically, or romantically. It would be useless to set up arguments in behalf of any particular school of history. Take for instance the three popularly known historians, Froude, Green and Lecky. The first-named is a paradoxical historian, as instanced in his flattering portrait of Henry the Eighth.

Mr. Froude has found in the Tudor king, who in his old age became, according to the authority of Collier, "an unwieldy mass of corruption and flesh," innumerable domestic virtues, an exalted chastity, and a most merciful disposition. The truth is, Mr. Froude is a romantic or heroic portrait painter. Yet it cannot be denied that he is a great historian-but at the same time a very dangerous one. Mr. Green, on the other hand, is practical. He takes the reader by the hand and points to people and events as they were-adding no touches of his brush to heighten the effect. Nor does he invoke an eclipse of the sun in order to view better the evolutions of an army in mid-day battle. But Mr. Lecky belongs to neither the practical nor the romantic school of history. To show that events have a system and a sequence, and are subordinate to great natural laws, is the duty of the philosophical historian. It is within this latter province that the able pen of Mr. Lecky has sought to labor. Is it possible to blend in one for the student who seeks wisdom from the pages of history, the glowing romance of Froude, the stern realities of Green, and the deep philosophy of Lecky? There is one thing we can do-drive out of our schools the old almanac system of teaching history, and substitute for the school of Dryasdust something more genial to the youthful mind. THOS. O'HAGAN.

THE FIRST DAY'S WORK IN NUMBER.

... A. WENTWORTH, A.M.

FOR a successful teaching of Number the teacher needs a great variety of objects. Blocks, splints, sticks, buttons, paper patterns, peas, beans, corn, spools, counters, shells, pebbles, horse-chestnuts, acorns, little tin plates, cups and saucers, tin money, are inexpensive and convenient to handle. For measurements, the teacher must have inch measures, foot rules, yard measures, a set of tin measures, a set of wooden or paste-board measures, a set of weights, and a pair of scales.

The teaching of Number as far as ten does not include the teaching of figures or other signs used in Arithmetic. No blackboard work is required of the child until after he has learned the numbers below ten. There is no difficulty in learning the figures along with the numbers; the difficulty comes in learning the numbers along with the figures. So it seems best to ignore the sign in favor of the thing.

It is more convenient in these exercises to have the children stand about a table on which are the objects to be handled, and many of the directions to the class are given with this arrangement in view. Let the children illustrate each story with objects, until it is evident that the relation between the num-

bers is as clearly seen without the objects as with them. Whenever a mental picture is formed, then the material is a hindrance to the teaching. Objects are a means to an end, not the end. When an idea has been abstracted from the concrete, objects no longer have an office to perform, and should be put aside.

Ascertain the child's knowledge of Number before attempting any teaching of Number. Do this by skilful examination after the child feels at home in the schoolroom.

"Show me so many blocks (two blocks); so many beans; so many pebbles; so many spools; so many pencils."

"How many blocks have I in my hand? Come, whisper to me, if you know."

After each has whispered the number, ask the class:

"How many spools did you show me? How many beans? how many blocks?"

Let the class answer in concert, "Two," each time.

"Show me two buttons; two boys; two girls; two chairs."

"Put two blocks on the table in front of you; put two buttons on the table; take one button from the table and put it under the table: put one block under the table."

If two be known, try three, and so on until a number is reached which is not known.

Second step in the examination:

Require the child to show some number with which he is familiar. For example, two.

"Take one of your two blocks away. How many blocks have you left?"

"If I have two horses and sell one horse, how many horses will I then have?"

"If I have two pencils and lose one pencil, how many pencils have I left?"

"You may put one block on the table in front of you. You may put another block with it. How many blocks have you now shown me?"

"One block and one block are how many blocks?"

"One horse and one horse are how many horses?"

"If I have one pencil and buy another, how many pencils will I have?"

"If John has one cent and I give him another cent, how many cents will he have?"

"If Susie has one apron and mamma makes her another, how many aprons will Susie have?"

"Show me two buttons. Take the two buttons away. How many buttons remain?"

"If there are two cows in the barn and two cows are turned out in the yard, how many cows remain in the barn?"

"Show me two boxes. Put one block in each box. How many blocks does it take?"

"If these two little girls have each a doll, how many dolls have they together?"

"If these two little boys have each a sled, how many sleds have they together?"

"If there are two nests, and an egg in each nest, how many eggs are there?"

"If there are two stores, and a wagon at each store, how many wagons are there?"

"Show me two blocks. Put one of these two blocks in this bex. Put another of your blocks in this box. How many boxes does it take?"

"If you have two hens, and each sits in a nest by herself, how many nests will it take?"

"If you have two spoons, and put each into a cup by itself, how many cups will it take?"

"If you have two cents, and give one each Sunday, how many Sundays can you give before the two cents will be given away?"

"If you have two pencils, and put each on a slate by itself, on how many slates will you put them?"

This outline for review is merely suggested as being searching in its nature. The aim should be solely to bring to light all the child's knowledge of Number, that the teacher may waste no time upon teaching him what he already knows. Do not hurry the examination. See that each child does for himself what you require, and does not imitate you or his neighbor in his work. Let each one answer for himself. Distinguish between the child's failure to understand your language and his inability to do what you require of him.

When the examination is complete, begin the teaching, and take the child where he is. As far as the experience of most primary teachers goes, few children know beyond two when they enterschool for the first time. In most instances three will be the starting-point in teaching.

The ability to count up to a number does not constitute a knowledge of the number; so this must not be taken as the test of the child's knowledge. Do not permit counting by ones throughout the work in Arithmetic.

In the teaching of every number the order to be observed is as follows:—

- I. The perception of the number.
- II. Analysis of the number.

Drill upon facts discovered by analysis.

IV. Comparison with smaller numbers.

ONE WAY OF TEACHING GEO-GRAPHY.

CAROLINE II. STANLEY, PRINCIPAL OF KALASIAZGO
THAINING SCHOOL

It once fell to my lot to take a class of forty bright pupils through the map of Europe in Cornell's Primary Geography. Those who are familiar with the book will remember the seven or eight solid pages of map questions followed by about two pages of description for each map. Dividing these two pages among the countries of Europe gives but a small amount for each country,

and if it had been arranged with the express idea of being easily forgotten it could not have been better done.

My class learned the map questions beautifully and we started in on the description. I labored over it faithfully, the class did the same; but at the end of the allotted time I am sure most of them could not have told whether it was Holland or Switzerland that was "greatly diversified"; whether it was the soil, climate, or population that was "mild and salubrious." It was humiliating to me at the time, but at this distance I am inclined to consider it proof of the normal condition of the class.

The next year I had another class in the same grade.

I determined to teach them differently; to teach a few things about a few countries in Europe and let the rest go.

It happened to be in a town where there were many Hollanders. When we commenced the map-questions I commenced the description with a story about the dikes of Holland, knowing that a story would impress the facts. I asked the Dutch children to find out from their fathers how the dikes were made and to tell anything they could about them. This provided for a class unable to find out much from books. I then asked the other children to look over their story books and see if they could find anything about Holland. I looked up some things myself which I held in reserve.

The next day they were eager for the lesson. The Dutch children were proud that their fathers actually knew about some things that the American fathers had only read about.

The other children were surprised and glad to find that there was any possible connection between their story-books and their geographies. The mass of material would have astonished anyone who knew nothing of children's literature of this day.

The children told what they knew, selections were read from their books, lively conversations were carried on about them, and then questions were put on the board to be answered at their language time. This was done for several days in connection with their map questions, and then each one was required to write on his slate a little description of Holland.

We followed the same plan with Italy, Switzerland, France, Russia, and England, taking one central idea as the peg on which to hang all we learned. In Italy it was Vesuvius; in Switzerland the Alps and avalanches. The other countries we touched upon very lightly. At the end of five or six weeks' work of this kind I divided the school into six divisions and gave each division one country to write upon. They hardly knew it was a "composition," for they were only writing down something they knew. We

the parents and children enjoyed it.

I tried the same plan with the map of Asia, illustrating with objects whenever I could obtain them, as: Indian idols borrowed from a returned missionary, a cast of a Chinese woman's foot, chop-sticles, etc., etc. Such things are worth pages and pages of description in showing the customs of a country.

They are hard to find, you say? So they are, particularly if you are not looking for them.

Now, as to results.

- 1. They gained clear ideas of a few things, which is certainly better than a confused idea of many things.
- 2. It gave a pleasant direction to their language and composition work.
- 3. It showed them that their general reading could be made to help their study.

BUSY-WORK.

IDA M. HARNES.

To the active little ones with whom we primary teachers have to deal, busy-work is at least as great a necessity as it was to the restless little bird. It is useful to the teacher as well as the scholar, for occupation is a the secret of order. And since the mind of a child delights in change, the teacher should a have at her command a variety of busywork. To give some helpful hints in this direction is the purpose of this paper.

All busy-work that deserves to be considered as such, carries with it some proportion of instruction; and the older the pupil, the greater that proportion should be, till at , the age of ten or twelve, busy-work as such need no longer be given.

Before that time, what work shall we put into the hands of these bright-eyed boys and girls who must be enabled to occupy themselves profitably, while we do our best with the classes under instruction? Let us consider first, some kinds of busy-work for those scholars who will soon be past the need of it. Their work will be largely with slate and pencil, and will supplement their regular studies.

Limit the class to some number of straight lines, say three, and ask who can produce the greatest number of figures drawn with three lines. A better way than to spend time in explaining, is to go to the board yourself and sketch some simple figure, saying, "I only used three lines. Who can draw a picture of something else with three lines?" Some pupil volunteers, and you soon have an illustration on the board of the work required. Now you are ready to say, " Take your slates and pencils. You don't know how many different figures you can draw with three lines." After your pupils have investigated the possibilities of three lines, which will perhaps occupy the spare

had songs and recitations interspersed, and moments of several days, take four lines, then five, etc. You can afford to spend time enough to pass down the aisles, glancing at the slates, you can give a word of commendation to any especially happy thought. But if you neglect everybody else, don't forget an approving word or look for the dull one who has laboriously produced five figures, while the bright one has sketched fifty.

> Another day, divide your class into three or four sections. "Now I am going to send all the scholars in section first into a grocery store, and they may write me a list of names of articles which they see for sale. To whose store shall I send you, Tommy? Those in section second are going to a hardware store for me; and those in section third may visit a jewellery store." You will probably have to write "kerosene" and "saleratus" on the board. I once observed on a "grocery" slate the name of a commodity which I fancied must be something entirely new. It was spelled sec-he-a-s, but the boy on whose slate it appeared promptly pronounced it cheese. In the same way the class may be sent to a farm, to the fair, out for a ride, etc.

Again, call for a plan of the schoolhouse, or if that be too much, the schoolroom, drawn on slates. The first work will probably be careless, but examine the slates, praising or showing errors as the case requires. Ask for the work to be performed again next day, hinting at something nice to be done with the best plans. Perhaps it will be three days before the slate work shows much accuracy, but be careful not to discourage your little architects. When the plans are neat, and reasonably correct, supply the children, or have them supply themselves, with paper. Foolscap may be used, or a good quality of wrapping-paper will do very well. Then provide the pupils with colored crayons, with which to copy their plans on the paper. And, by the way, colored crayons are almost indispensable in school. I have found yellow, blue, and orange most useful. The plans, neatly copied, are ready for your approval; and if you have used tact in dealing with the slate work, you will find that nine out of ten are fit for the distinction you will hereupon confer on them-that of being pinned up in the schoolroom.

Another plan, for scholars who have begun the study of geography: Have them lay tissue paper on the map of the Western Hemisphere, and with a pencil trace the outlines of the continent and the surrounding circle. Then with a pen, have them prick the outlines thus traced on the tissue paper-This perforated paper held to the board and gently patted with an eraser full of chalkdust, will give on the board a faint but accurate outline of the copied map. Here again your colored crayons come into play,

in filling in the countries, and making the ocean "deeply, darkly, beautifully blue."

It is a good plan to assign a certain section of the boards to these gay little maps, and leave them on for a week at least. Another idea is to write three or four suggestive words on the board, and then ask for stories to be written containing these words. The variety and ingenuity of stories composed in this way are quite remarkable.

Younger scholars may find employment in translating into the Roman notation a column of figures which you have placed on the board in the Arabic.

The old play of word-making may be utilized in the schoolroom. Write some word of two or three syllables on the board, and spend a minute or two in writing under it little words formed from the letters contained in the larger one. Let the pupils suggest words to you. When their interest is fairly awakened, tell them they may continue the game on their slates.

In the plans thus far considered, as in everything else in school, it is the teacher who sounds the key-note. If her interest flags, that of her scholars will surely do so. Finally, with regard to this department of busy-work, let me add one bit of advice worth more than all the schemes suggested Study your school, its needs and possibilities, and invent work to suit the occasion. Circumstances vary; vary your methods to suit your surroundings. Do not fear to leave the beaten paths. "All roads lead to Rome," and if we have the true spirit of teaching, all our plans and devices will lead to one ultimate end-the "harmonious development" of the children in our care.-N. Y. School Journal.

READING.

Wal. 21. GIFFIN, A.M.

NOT long ago the writer was asked how he wished reading taught. The question was proposed by a young teacher who had just been appointed to take charge of a primary class. The answer was that all the rules for reading were to be joined into one, viz., "Read as you talk." Require just as much thinking on the part of the pupils in the reading class as in any other. Too much thoughtless reading is done in our schools. This is often caused by the teacher. Many teachers correct errors in reading by first reading a sentence right, after which they call on the pupil to read the sentence as he has heard it read. The pupil then reads, and, no doubt, reads it right, but he has done no thinking; he has simply imitated or aped his teacher, and, of course, he learns nothing by such aping, except in the ..ense that a parrot learns. Because a parrot can be taught to say "Polly want a cracker," we must not conclude that he is any nearer

a human being; for he is no nearer than the crow which slies through the air with his "Caw-caw." So with the child who is taught by the parrot methods. He is not helped any nor is he brought any nearer the development required by his Creator. Did you ever think, young teachers, what the work is that you are doing? Someone has beautifully said: "What considerate man can enter a school, and not reslect with awe that it is a seminary where immortal minds are training for eternity?"

We do not agree with some teachers that it is the much reading that is the best. We think more of the quality than of the quantity of the reading. We have heard very interesting reading lessons in which the pupils were called on to read less than a dozen words. More thinking, however, was required ti:an is often called for in a dozen pages. Let us suppose we have a class before us. We write the word "sir" on the blackboard, and ask the pupils to read it, which they do in an ordinary tone of voice. We look at them and say. "Class." "Sir," say they, when we repeat with slight emphasis, "Class:" "Sir," is repeated by the class. Again we say, "CLASS," when they repeat, "SIR." In a haughty manner we say, "Get out of my way," when the class, in a tone of contempt, read, "Sir!" Next we write the word, " What" on the board, and again say, "Class." "What," by the class. "Class," by us; " What," by the class. "C-LASS," with a cross tone, by us; "WHO-AT," is answered in the same tone, with no hint from the teacher. " May Rash has run away with John Badsome," we say, and at once the class answers," W-H-A-T!" Everything so far has been read right, because the children have the thought, and nature has taken its course.

Next we write, "I can hear a gun." The pupils are fold to read it. They do in a conversational tone. We then ask, "Who can hear a gun?" when the sentence is read. "I can hear a gun." "No, you cannot hear a gun," we answer; when the sentence is read, "I can hear a gun." "Oh, no," we say, "you can see a gun"; when the sentence is read, "I can hear a gun." "You can hear a drum," by us. "I can hear a gun," by the class. Now we ask, "Who can use the same words and ask a question with them? George may do so." George reads, "Can I hear a gun?" George has never learned the rule, "Direct questions that can be answered by yes or no, require the rising inflection." Still he makes no mistake in his inflections. "Good," we say, and write George's sentence and place a period after it. At once up go all the hands, and we ask, "Why, what is the trouble?" "O, you have put a period where there should be a question mark," they all cry, and perhaps some of them rise right out of their scats, and do you believe it, my dear reader,

we do not think to give them a disorder mark, and, strange to say, the roof does not fall because we have thoughtlessly (?) worked in a little language lesson during the reading period! When QUIET is restored, we write the question mark in place of the period, and ask, "Who can read the sentence so that we will know who it is that desires to hear the gun?" Mary is named and at once reads, "Can I hear the gun?" "Good," we say, "and now who can read it so that we will know what the questioner wishes to hear?" John is called and reads, "Can I hear the gun?" So we continue the exercise, and at its close, which is a little before the pupils wish it, all are full of animation, and we feel that it was no such lesson that suggested to Edmund Burke the following lines written by him:

"To read without reflecting, Is like eating without digesting."

—Teachers' Institute.

HINTS FOR DISTRICT SCHOOL. EVELVY S. FOSTER.

IF it is necessary to find pleasant and improving occupations for the little ones in the graded schools, it is certainly even more important in the district schools, where the many studies of the older pupils take so much of the teacher's time and attention. once met a lady who said the ages of her pupils ranged from four to eighteen years, and the branches she taught included the primer and algebra and all the intermediate studies. In such cases, the teacher cannot give much time to the little ones who are just beginning their school life. What, then, shall she give them to keep them happy and quiet and profitably employed? I once, for a few months, taught a district school, that perhaps afforded even more variety in the way of age and studies than the average district school. Visitors often remarked on the happy faces of my little ones. I wish some of the devices I employed might help some sister teacher in a similar position.

A box of letters, originally designed for playing the game called "Word-making and Word-taking," gave my children much pleasure. I often divided the letters among them, and each child tried to surpass the rest in the number of words he could make. I distributed these letters, at recess in the afternoon, to the children who had been good during the day, so by them the little ones were allured into good conduct, both before and after receiving them. The pupils placed the words they formed upon their slates and if a slate was shown to a chance visitor, how proud the owner felt! One boy once surprised me by forming fifteen words and using nearly all the letters given him. The little ones enjoyed this work so well that those older begged for the same pleasure. I occasionally granted it to them as a reward for a good recitation in a difficult lesson.

The box of letters was not only useful in teaching the little ones to spell, but also in teaching them the first lessons in arithmetic. By their aid the children formed the multiplication-tables. An ingenious teacher will find many ways to use them beside those I have mentioned. I sometimes secured a good recitation from my older pupils by offering as a reward to those who did well, the pleasure of teaching the little ones in the entry for a half-hour. I had one pupil who was fourteen years old. She was a good girl and did well in several studies, but was very backward in arithmetic. I soon found that to her even "Multiplication was a vexation." Remembering that some one has said, "We never know anything until we have taught it," I asked her, when she won the reward, to drill the little ones in the multiplication-tables. Another, who was weak in spelling, sometimes taught that lesson to the lower classes. In this way the older pupils helped themselves and me also.

A teacher beginning her work in a district school often finds the pupils deficient on the ground they have already been over. If she puts them back she disheartens them, and very likely incurs the ill-will of the parents, which evils it is for her interest to avoid. I overcame the difficulty in this way. I gave my first class in arithmetic, who were studying percentage, an advance lesson, and offered them extra merits if they would recite also, for review, in the class studying long division. That class in turn, for review, took examples with those beginning addition. I followed a similar course in reading. I did not make these reviews compulsory, but tried to make them appear to the children, what they really were, a privilege. They became very popular, made the classes larger and more interesting, and afforded a healthful stimulus to both younger and older pupils.

Of course, I allowed my little ones, at times, to write upon the board, and as a reward for good lessons or good conduct would occasionally allow them to use the colored chalk. Those who do not know how happy a little thing can make a child, would be surprised to see the power that lies in even a small piece of colored chalk. When the children wrote upon their slates for busy work, I sometimes told them to write all the words they could think of containing three letters; on another day, those containing four; and so on, as "they grew in knowledge." For this suggestion I am indebted to a friend. One class worked for several days, in the time they could spare from their regular lessons, in writing a list of things decorated with imitations of flowers. Another class was very greatly interested in finding the names of things made from iron; and another, those made from wood. Both enjoyed making a list of the names of musical instruments. - American Teacher.

Educational Intelligence.

Mr. GEORGE MIDDLETON is second teacher in Lucknow Public Shool.

MR. E. RICHARDSON will teach in Williamsburg this year. —Port Perry Standard.

MR. S. RANTON, formerly of Glencoe, is engaged for Lucan School at \$500.

MR. ARTHUR ALLIN is engaged for Epsom School.—Port Perry Standard.

THE substitution of Latin letters for the Japanese alphabet is making rapid progress in Japan.

THE schools in Pontypool and Orono are closed owing to smallpox in the neighborhood.—Omemee Herald.

MR. RODGERS leaves Cambray to go to Collingwood. His place will be occupied by Mr. D. McMillan.

MR. G. J. RIDDELL, B.A., of St. Mary's Collegiate Institute, has been granted an increase in salary of \$100.

IN Georgetown Public School Mr. Harrison is principal, assisted by Miss Pringle, Miss Godfrey, Miss Foster and Miss Hutchison.

ORILLIA Schools are crowded. The full capacity of all the schools is about 750, while last year the number of pupils enrolled was 1,057.

THE teachers for 1886 in Bracebridge School are Mr. Thomas, Mr. Davis, Miss Reynolds and M. H. Fenn.—Bracebridge Gazette.

18 the Paisley School Mr. Munro, Mr. John K.; h, Miss Patterson and Miss Annie Duncan compose the staff for 1886.—Advocate.

In St. Mary's Public School Miss Annie Thompson is to take the place of Miss C. Henderson who has resigned because of illness.

In the Essex Centre Public Schools the teachers for 1886 are Mr. C. H. Fuller, Mrs. Brisbin, Miss Ballard and Miss Helyar.—Essex Liberal.

MISS BELLA OLIVER, of Downie, has been appointed teacher in the Cobourg Collegiate Institute, at a salary of \$600.—St. Mary's Argus.

MR. B. C. REECE, formerly of Grimsby, teacher of School Section No. 3, has started a paper at Niagara Falis, called the World. — Smithville Advertiser.

MR. JAMES McCREARY, 'late principal of the Smith's Falls Public School, has accepted a similar situation in the town of Peterboro'. -- Smith's Falls Independent.

THE Literary Society of Whitby Collegiate Institute has just placed an order for \$60 worth of periodicals for the reading room of the institute in the hands of Stafford & Wilson, booksellers.

The fact that the collegiate institute commenced this term with an attendance of over 120 pupils, shows that the imposition of a slight fee has not had any evil effect so far.—St. Mary's Argus.

Miss. Pedlow, of Ridgetown School, has resigned. Promotions of the other teachers have been made, thus creating a vacancy in the lowest department which is filled by Miss Sarah Tolmie, salary \$250.—East Kent Plaindealer.

MISS PIRT, of Uxbridge, and Miss E. Chase are appointed teachers for the 7th and 8th depart-

ments, Orillia Public School; Miss Nina Cooke was promoted to the 5th department, and Miss Creen to the 6th.—Orillia News.

MR. WILLIAM TILLEY, of Napanee, died very suddenly at his house on January 3rd. He was for twenty-five years a teacher, his last engagement being in Napanee High School. He was a man known largely throughout the Province and held in high esteem by all who knew him.—Napanee Beaver.

DR. FORREST, head master of the Bradford High School, has been re-engaged for the incoming year, at an increase in salary of \$100 per annum. Mr. Bean has also been retained for another year, salary \$800. The tuition fee in future will be \$3 instead of \$2 as formerly.—
Orangeville Advertiser.

THE staff of Chatham High School includes the following teachers: Mr. Christie, B.A., head master; Mr. Deekes, B.A., mathematical master; Mr. Twohey, M.A., classical master; Mr. D. Skinner, B.A., modern languages and science master; Mr. Short, B.A., junior assistant; and Miss Minty, teacher in drawing.—Chatham Planet.

REGARDING the accommodation for the County Model School, Mr. Knight, the inspector, states that the room now in use at the high school is too small, in fact only large enough for classes of eight pupils, and that the classes have to be changed frequently to prevent pupils standing too long. In some subjects, such as calisthenics, an examination is not possible for want of room—Lindsay Post.

The following is an additional list of the number of pupils passed at the late entrance examinations: Oakville, 13, 1 recommended; Smithville, 14; Listowel, 35, 1 recommended; Collingwood, 31; Walkerton, 38, 2 recommended; Berlin, 12, 7 recommended; Smith's Falls, 17; Ingersoll, 21, 2 recommended; Simcoe, 31; Port Dover, 8; Port Rowan, 4; Dundas, 4; Waterdown, 16; Seaforth, 33; Clinton, 17; Goderich, 14; Exeter, 10; Orangeville, 21; Almonte, 16; Dutton, 11; Peterborough, 46; Chatham, 35; Woodstock, 32; Napance, 36; Newburgh, 12.

THE Waterford Public School has just passed through a year of unusual activity, progress and success. The increase in attendance is 89; the building has been enlarged by an addition costing \$2,500; the principal's room has been furnished with 56 of Stahlschmidt's model single desks; a fourth teacher has been engaged. At Christmas the pupils gave a concert at which the cantata "The Picnic" was presented, with choruses of 80 voices—proceeds \$54. The salary of Mr. E. H. Carpenter, principal, has been raised to \$600. Miss Alice M. Bannister is first assistant.—Com.

The students attending the Stratford Model School and the teachers of Perth County, at a meeting held on December 5, 1885, formed themselves into a Teachers' Protective Association. The object of this society will be: To mutually assist one another; to cultivate a professional spirit among teachers; to elevate their social standing; to secure as far as possible suitable legislation for the profession; to aid one another in distress: to facilitate the securing of positions for members of the union; to pretect one another as regards salary; to aim at controlling the admission of candidates into the profession; and to aid

in establishing unions in other counties. -- St. Mary's Argus.

INSPECTOR HODGSON in his report on the Peterborough Collegiate Institute says: "This institute does not in all respects comply with the requirements of the statute (48 Vic., chap. 50, sec. 13). 1. The grounds are limited in extent, and there is no gymnasium or other appliances for physical training. 2. The library of reference is meagre and requires supplementing. 3. The supply of chemical and physical apparatus is defeccive (see sec. 60, page 113 of the regulations). Unless the deficiencies are supplied within a reasonable time the institute will be in danger of being reduced to the status of a high school. (See regulations, sec. 51, page 114.) . . . I think that, on the whole, Dr. Tassie and the Board of Trustees are to be congratulated on the healthy state of the institute."-Peterboro' Review.

A PAPER on "Manual Training," by Charles II. Ham, of Chicago, which is to be printed in the Feburary issue of Harper's Magazine, will give an interesting summary of the practical work done in schools throughout the country in this direction. Horace Mann endeavored to start reform in this direction as far back as 1840, but the resistance against it was effective. Mr. Ham dates the new interest in the subject in this country to the Centennial Exhibition, where some models of iron-working in its successive stages suggested to Doctor Runkle, president of the Massachusetts Institute of Technology, a plain way of combining school and practical instruction. There are now courses in manual training in more than forty educational institutions in the United States.

THE Board of Managers of the Ottawa Ladies' College, being anxious to afford an opportunity to those ladies who may wish to enter upon a critical study of some of the masterpieces of English literature, has decided to open the class in English Language and Literature to all who desire to attend. This class meets three times a week, and the special subjects of study during the next two terms will be Longfellow's Evangeline and Shakespeare's Iulius Caesar. Around these, as central pieces, will be grouped the literature of their respectiveeras, and full details will be given of all philological, historical, and other questions which will arise in the critical examination of these authors. We are glad to know that the attendance at the college is the largest ever known, being now 140, of whom one-third are permanent boarders.

PRESIDENT FORTER has sent to the corporation his resignation of the presidency of Yale College, the resignation to take effect at Commencement in the latter part of June. He will, however, retain his position as Clark Professor of Moral Philosophy. President Porter graduated from Yale in 1831, and was a tutor in 1833 to 1835. In 1846 he was appointed Clark Professor of Moral Philosophy, and in 1871 was put at the head of the university, succeeding President Theodore D. Woolsey. He is now seventy-four years of age. At its meeting in May, 1886, the choice of his successor falls upon the corporation. The names most frequently mentioned as his possible successor are Professor E. S. Dana, President Gilman of Johns Hopkins, Professor Timothy Dwight, ex-President Andrew D. White of Cornell, and Gen. Francis A. Walker.

Examination Papers.

HIGH SCHOOL ENTRANCE.

DECEMBER, 1885.

WRITING.

Examiner-J. E. Hodgson, M A.

- 1. Write the following letters and figures :-
- A, B, C, H, M, O, P, S, T, W, X, Ilt, qq, rms, ptl, 11gh, qu, 3, 6, 7, 9.
 - 2. Write the following passage:-
- "I had been often told that the rock before me was the haunt of a genius and that several had been entertained with music who had passed by it, but never heard that the musician had before made himself visible."

HISTORY.

Examiner-JOHN SEATH B.A.

NOTE.--A maximum of 5 marks may be allowed for neatness.

- 1. How did William the Norman come to be King of the English? What changes did he and his sons make in England?
- 2. State the chief provisions of the Magna Charta. What led to its being signed? Why is it valued so highly?
- 3. Give an account of the great changes that took place in England during the reign of Queen Elizabeth.
- 4. State briefly the causes and the results of the American War of Independence, and the Revolution of 1688.
- 5. Why is each of the following important in the history of the English people:—

The Battle of Bosworth, The Seven Years' War, The British North America Act, Sir Robert Peel.

- 6. What should we admire and what should we condemn in the character and conduct of King John, Cardinal Wolsey, Hampden, and Charles I.?
- 7. Explain the meaning of the following statement:—" In Canada all questions of government are settled in Parliament, in which both sovereign and people have a voice."

GEOGRAPHY.

Examiner-J. E. HODGSON, M.A.

Note.—A maximum of 5 marks may be added to the total value for neatness.

- 1. Define:-latitude, longitude, oasis, delta.
- 2. Name the provinces and the territories of Canada.
- 3. What counties of Ontario border on Lake Ontario?
 - 4. Name the principal sea-ports of Canada.
- 5. Trace the following rivers: -Mississippi, Danube, Nile.
- 6. Draw an outline map of Africa and indicate thereon the position of:—Algiers, Cairo, Natal, Cape Bon, Victoria Nyanza, Orange River.

- 7. What and where are the following:—Labrador, Three Rivers, Portland, Selkirk, Cuba, Panama, Heligoland, Maelstrom, Vesuvius, Cyprus, Malta, Ceylon, Formosa, Transvaal, Fezzan, Niger?
- 8. a. What portions of Canada are noted for any of the following products:—wheat, apples, peaches, pine, coal, iron, salt, gold, copper?
- b. What commodities do we obtain from the following countries:—Japan, Barbadoes, Spain, Brazil?

ENGLISH GRAMMAR.

Examiner-JOHN SEATH, B.A.

Norg. -A maximum of 5 marks may be allowed for neatness.

- 1. Name the parts of speech essential to every sentence, giving in each case the reason for your answer.
 - Name also the modifying and the connecting parts of speech, and state, in your own words, what special duty each of these parts of speech performs in the sentence.
- 2. In what sense is the term "Interjection" used in grammar?

What do you mean by "Speech" when you call the interjection a "Part of Speech"?

3. Construct sentences to show that each of the following may be used with the value of different parts of speech:—

home, wrong, to see the place, where he was.

- 4. Explain, in your own words, the meaning of each of the following terms:—Nominative, Number, Subordinate Phrase; and illustrate by reference to each example of these terms in
- 'James, these are two of the fish that he caught with their rods.'
- 5. Put into separate classes the following adjectives: happy, each, little, many, great, that seven, all, clouded, the, what, sixth.
- 6. Write down the adverbs corresponding to the following adjectives:—

worse, true, hasty, frantic.

7. Distinguish .ne meanings of :-

'The box came safe,' 'The box came safely,' and 'The box came safest': 'He may tell the truth' and 'He can tell the truth'; 'A bucket full of water' and 'A bucketful of water'; and 'Cream rises on milk' and 'Cream rises on the milk.'

- S. a. In that darksome mill of stone,

 To the water's dash and din,

 Careless, humble, and unknown,

 Sang the poet Basselin.
 - b. When religious sects ran mad, He held in spite of all his learning, That, if a man's belief is bad, It will not be improved by burning.
 - (1) Classify each of the clauses in the above sentences.
 - (2) Analyse the predicate of a.
 - (3) Parse the italicised words.
- 9. Correct, where necessary, the following, giving the reason in each case:

- a. He is no taller than me or you or his sister.
- b. The boy has come, him I spoke to you about.
- . The book is at my brother's, the grocer.
- d. A father, or a mother's sister is an aunt.
- c. Each day and each hour brings its changes.
- f. She is the same lady who I saw at the door.
- g. He murdered the man in a thick woods.
- h. Have you ever, or can you, imagine this?
- i. You have not written me: you ought to.
- j. No one should write slovenly.

COMPOSITION.

Examiner-J. E. Habgson, M.A.

Note. -A maximum of five marks may be added to the total value for neatness.

 Combine the following elements so as to form a complex sentence:

The Strait of Gibraltar leads into the Mediterranean. The Mediterranean is a series of inland seas. These seas wash the coast of Italy. These seas wash the coast of Africa. These seas wash the coast of Syria. These seas wash the coast of Ecvot.

- Explain what is meant by the terms direct and indirect as applied to the form of speech. Give an example of each.
- 3. Express in words of your selection and arrangement the meaning of the following:-
- a. The boats plied busily; company after company was quickly landed, and as soon as the men touched the shore they swarmed up the steep ascent with alacrity.
- b. Vice is a monster of so frightful mien, As, to be hated, needs but to be seen: Yet seen too oft, familiar with her face, We first endure, then pity, then embrace.
- 4. Correct the following:-
- a. What was the future of these two boys.
- 4. He ascended up the hill.
- c. He pulled the plant up by the roots.
- d. The whole town may be seen sailing up the river.
- c. Can we suppose that good blood replaces teaching?
- f. The two boys divide the work among themselves.
- g. His faithfulness and fidelity are unequalled.
- 5. Write a letter to a friend, describing your school-grounds and class-rooms.
- 6. Expand the following into a paragraph:-

The Hundred-Years' War had ended not only in the loss of the temporary conquests made since the time of Edward the Third, with the exception of Calais, but in the loss of the great southern prevince which had remained in English hands ever since the marriage of the duchess, Eleanor, to Henry the Second, and in the building up of France into a far greater power than it had ever been before.

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