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Educational Weekly

Vol. V.

THURSDAY, MARCH 3RD, 1887.

Number 111.

The Educational Weekly.

Edited by T. ARNOLD HAULTAIN, M.A.

TERMS: Two dollars per annum. Clubs of three, \$5.00. Clubs of five at \$1.60 each, or the five for \$5.00. Clubs of twenty at \$1.50 each, or the twenty for \$30.00.

THE GRIP PRINTING AND PUBLISHING CO., TORONTO, CANADA.

JAMES V. WRIGHT, General Manager.

TORONTO, MARCH 3, 1887.

In some parts of Manitoba there seems to be a scarcity of qualified teachers, though a large number of schools are closed during midwinter in the rural districts. The question of an adequate supply of suitable persons to take charge of our schools is yearly becoming more difficult of solution. The question must be solved and a supply provided, for the people will not be satisfied with schools without the vitality or teachers without the ability to teach. An increased grant of money to each school will not insure an increased supply of teachers, and it will be wasted without it. About 300 candidates are examined for certificates annually, of whom from one half to two thirds pass and receive licenses for shorter or longer periods. Where are these candidates prepared? What inducements are offered to schools preparing them? How can the supply of properly instructed candidates be maintained from year to year? These questions must be examined and steps must be taken to insure satisfactory an swers to them if we expect to keep our schools supplied with teachers able to give the instruction necessary to maintaining the standard of intelligence now existing among the people of Manitoba. The preparation of candidates for examination is done at present largely in the city and town schools of the province, those for the higher certificates being confined to the cities of Winnipeg and Brandon. No special grant is made to any school to aid it in this work and no special effort or expenditure on the part of the local school can be expected or enforced without such a grant.

The high schools of Ontario, the high and superior schools of New Brunswick and the county academies of Nova Scotia are devoted mainly to the work of instructing persons preparing for teaching, their training in the art of teaching being afterwards provided for in the Normal schools. In Manitoba the training of teachers is provided for in its Normal schools, as to the excellence of which there are no two opinions; but the want of proper instruction for candidates before they begin this training is being severely felt and provisions will have to be made for it. The objection usually made to the establishment of high schools is that its necessity is secondary to the establishment of elementary schools, and so it is; but to the extent that high schools supply teachers for the elementary schools, they are necessarily an essential part of an elementary school system. The establishment and adequate support of high schools in this province is the means and only means by which the efficiency of its elementary schools can bemaintained, and this it will be the duty of the new legislature to consider at an early date.-

THE final Report of the Royal Commission appointed to inquire into the Depression of Trade and Industry has been recently issued. There are some matters in this report, says the Educational Times, of special concern to the schoolmaster. Our trade and commerce, it is alleged, suffer from the lack of mental suppleness in those who are engaged in them, and from an ignorance of the lan guages, customs, and resources of foreign countries. Dealing with the increasing severit yof the competition of foreign coun tries, and our less favourable position rela tive to those countries than in former years, the Royal Commissioners remark,— "But, if we do not possess to their full extent the same natural advantages as we formerly enjoyed, we have still the same physical and intellectual qualities which gave us so commanding a lead; and we see no reason why, with care, intelligence, enterprise, and thoroughness, we should

not be able to continue to advance. In order to do so, however, it is obvious that we must display greater activity in the search for new markets, and in the effort to accommodate our productions to local tastes and peculiarities. Even in matters of so little apparent importance as weights and measures, it would seem that our disinclination to adapt ourselves to the requirements of our customers has not been without its effect. In the matter of Education we seem to be particularly deficient as compared with some of our foreign competitors, and this remark applies, not only to what is usually called technical education, but to the ordinary commercial education which is required in mercantile houses, and especially the knowledge of foreign languages." These remarks are taken from that part of the Report which is signed by the great majority of the Commissioners. Four of the Royal Commissioners dissent from the majority, and make a Report of their own. In this minority Report we find the following paragraph . "There is one department in the work of elementary schools, which, though of vital importance to the success of our industries, has not yet, we think, received sufficient attention. We allude to the disciplinary training of children. I. is a remark often made by experienced man agers and foremen in manufactories, that the children who now come to them from elementary schools are not, to say the least, more receptive of that industrial training which is required to make them skilful and active workers than those were who came in former years, equipped with a smaller amount of school learning. We think that the careful and thorough training of children in habits of punctuality and order, of alacrity and diligence, and of close attention and prompt and implicit obedience to instructions, ought to occupy more of the time and thought of teachers in elementary schools; and that its results should be more strictly tested in examinations, and should influence the amount of grants in aid much more largely than is now the case."

Contemporary Thought.

THE United States to-day has a very large army of wealthy invalids, an army that seems to be on the increase, too, and one that goes moaning up and down over the land seeking health and finding none. Everywhere you go, where location and climate have anything to offer, or healing waters containing aught of good to assist nature in her strugule to lengthen out the days of those who have more ducats than digestion, you will see the anxious eye and the halting gait of those who have fought the fight for gain, and now, crowned with victory and misery, find themselves in the great national hospital that moves about from Moosehead Lake to Tacoma, to Los Angeles, to Jacksonville, to Duluth, to Denver, to Asheville, to Minnetonka, to Santa Fe, to the Hot Springs and the Cold Springs, to the iron springs and the soda springs, to the dry air of the mountains and the wet air of the sea, with no home that they can call permanent and no sure thing for the future but a will contest and the long, starless nights of death. -... New York Tribune.

BALZAC's personality went for something in his day. His was no wandering voice coming from impenetrable groves or speaking under a feigned name. He was en evidence throughout, and set full in the light of the sun. "C-tte vaste mer," as Léon Gozlan calls him, with his superb dreams of boundless wealth and practical paucity of sous; bis luxuriant imagination; his Oriental splendour of desire; his cane; his hair; his rolling walk; his elphantine figure; his powers of work; his eas of black coffee; his mysticism and his analysis, was of a kind to fill the public eye and stimulate curiosity. Always on the point of making a colossal fortune, he was always in some sordid trouble with his creditors; and his actual debts pressed while his potential gains lingered. Henri Monnier's cynical "Avance-moi cent sous sur l'affaire"-which was to be the certain source of millions-crystalizes the whole substance of the romance and reality ruling Balzac's life. The millions, according to him, were as sure as fate. All the same, he did not care to advance five francs on their security, and preferred to pawn his ideas to his friends for a few hundreds. Dreaded by his enemies, adored by his friends, feared and detested by his creditors, Balzac must have been a formidable associate to all those who were bound to him; formidable because of that intense egotism which he had in even larger measure than have most men of genius. He had no sense of the sufferings nor of the rights of others. The picture given of how, six or eight times in the night, he would rouse up his infertile and somnolent colloborateur, Lassailly, and, with a pistol at his head, force him to work at the drama which was to carry Paris-and did not-is a measure of the rest, even when docked of its patent exaggeration. No wonder the poor fellow left Les Jardies as one fleeing from the wrath to come, and never after spoke of Balzae without a visible shudder and unconquerable terror .- Tempie Bar.

JUST let us conside what 14 hours of work means. We cannot reckon less than eight for sleep, which only leaves two for dressing and undressing, for supper, and for going to and from the shop. This absorbs the whole 24 hours, and not a moment is lest for amusement or self-improvement, for fresh air or family life, for any of those occupations which cheer, brighten, and ennoble life-in fact, we literally say that not only have shop assistants not a moment to themselves, but they are so hard worked that at the end of the week they are fit to drop with fatigue. The whole country would gain if shop assistants had greater opportunities of intellectual, moral, and spiritual improvement. Moreover, the cruel effect of the long hours is considerably increased by the fact that the unfortunate assistants have to stand the the whole time. This long standing is a terrible evil. How injurious standing is we may clearly see from the fact that though customers remain in a shop for so comparatively short a time they are invariably accommodated with seats. Considering, however, the relative need of rest as between the assistants and their customers, it must be admitted that the scats are on the wrong side of the counter. Happily, I may say this is no question between shop-keepers and their assistants. There is no such difference. I believe that shopkeepers are almost as anxious to close as the assistants themselves. Perhaps, then, it may be said, why not leave the matter in their hands? Because almost in every case the arrangements for carly closing have been rendered nugatory by the action of some very small minority among the shopkeepers. Over and over again the shopkeepers in a given district have been anxious to close, and have all agreed to do so with, perhaps, a single exception. But that single exception is fatal. One after another the rest gradually open again, the whole thing breaks down, and thus a small minority tyrannize over the rest. It seems clear that nothing but legislation can remedy the evil. Voluntary action has been tried and failed over and over again, and the almost unanimous opinion of the witnesses examined before the House of Commons committee was that it was hopeless to expect any shortening of the hours in that way. Such then is the present position of affairs, and, as I have said, the general feeling of the shopkeeping community is in favour of legislation. Even as long ago as 1873 the shopkeepers who came to me with reference to the bill I then proposed, expressed themselves in favour of a general compulsory closing. I then thought this was impossible. Only by degrees have I become convinced how deep and general this sceling is. - Sir John Lubbock, in Good Words.

WHETHER a consent marriage is or is not legal at common law has never been determined. When the question was raised in England, nearly half a century ago, the judges of the Court of Queen's Bench were equally divided on the subject, and an appeal being taken to the House of Lords, the six law peers, including Lords Brougham, Denman, Campbell, and Lyndhurst, were equally divided. Simultaneously the question was raised in this country, says the San Francisco Call, and by a strange coincidence the judges of the United States Supreme Court were equally divided, and Chief Justice Taney announced that the Court was, in consequence, unable to pronounce a judgment. Since then the States have undertaken to decide the question, and some have decided in

one way, and some another. In California the framers of the code decided that a consent marriage was lawful. It has been urged that there was a reason for this when the State was sparsely settled, and it was sometimes difficult for parties intending marriage to secure the services of a magistrate or a minister. No such reason exists now. There is no part of the State from which it is impossible to reach either one or the other official. In every county magistrates or clergymen can be found to solemnize a marriage if the parties really want to have it solemnized. At abstract law, marriage being a civil contract, any two persons of opposite sexes, and capable of contracting, can make such a contract without the intervention of a third party. But in practice, the consequences of marriage as to conjugal rights, and the rights of heirs, are so momentous that the interests of society absolutely require such intervention, for where it does not take place the woman is placed at the mercy of a man who may deny the consent marriage, and repudiate her, and, on the other hand, men may be blackmailed by female adventuresses, who declare that there was a consent marriage where there was none. No man who really desires to make a woman his wife will object to the solemnization of the marriage; if he does object, he tacitly admits that he intends to cheat her. And with much more force may it he said that no woman will demur when it is proposed to clothe her matrimonial association with the forms of law. The matter commands little public attention, because conseat marriages are so rare; families are generally careful enough of their children's honour to see that their marriages are duly solemnized; but if there were but half a dozen in a year, it would be worth the while of the legislature to alter the law so as to prevent even that small number of wrongs. The time will doubtlest come when some startling case will rouse the people of the United States to the expediency of stripping the State legislatures of their control over marriage, divorce, and inheritance, and amending the Constitution so as to confer the control of these matters upon Congress. A uniform law, extending its authority over the whole country, is needed. As matters stand, a man may be a married man in New York, and a bachelor, for all purposes of marriage, in California; may have but one wife in Indiana, but two in Massachusetts. A woman may be a lawful wife in one State, and no wife at all in the State adjoining. Her children may inherit in California, but, being classed as illegitimate in Connecticut, may have no claim to property owned by their father in that State. The wisdom of a discreet, well-guarded law of divorce is now conceded by all legislators, but there can be no justification or apology for thirty-eight different divorce laws, each differing from the other as to the causes of divorce, and as to its legal consequences. No transaction in the life of a man or woman is more important than marriage, and its dissolution, either by divorce or death. It is but right that its regulations should not be left to the whim and conceit of State conventions, often ill-equipped with minds competent to grapple with such problems. They should be committed for solution to the ablest men in the country, and their decision should be binding throughout the land.-New York Star.

Notes and Comments.

WE have received through the kindness of Dr. Wilson, President of University College, the advance sheets of his two papers read before the Royal Society of Canada in the months of May, 1885 and 1886, and entitled "The Hand and Left-handedness," and "Palæolithic Dexterity."

It the farmer wants his boys to stay on the farm, let him work with his head as well as his hands, and teach them to do likewise. Let him show them that it is a calling requiring brains as well as muscle. A few simple and comparatively inexpensive labour-saving contrivances will not only pay for themselves in a short time, but greatly interest the boys as well.—The Globe.

A SOCIETY for the promotion of the higher education of women has been founded in Japan, under the presidentship of the Prime Minister, and with the support of various influential foreign and Japanese gentlemen. Besides regular courses of instruction which will be provided, special courses of afternoon lectures will be delivered by the professors of the university. The whole institution will be under the control of a foreign lady principal, assisted by two or more foreign lady teachers.

USING the language of current science one would say that the first necessity of man is to learn his environment and act effectively upon it, or, in simpler words, to become acquainted with the things among which he has to live and to make the utmost use of his own powers in dealing with them. It was worth something to James Watt and to the world that he took note of the power of steam in lifting the lid of a kettle and changed that lid into a piston. The chief lesson taught in school is not to look about you and not to use your fingers. Teachers know too well that Satan finds mischief for idle hands.—

Montreal Witness.

DESIGN and modelling, and their developments in other materials, are as play to children, and if they are properly taught, the results may quite as well be of a valuable and important nature, as a trifling one. Such work familiarizes them with the use of tools, develops their constructive faculties, and awakens quickness of perception. It easily accustoms them to the first step in discipline, that is to keep quiet and obey a superior. This is so well recognized that I once within a few days received letters, one from a lady trying to teach a class of young Hottentots far in the interior of Africa, and another from a missionary's wife in Alaska doing the same with a number of little semi-Eskimo savages. Both wanted to set their pupils at anything which would keep them still and familiarize them with schoolhabits or discipline -C. G. Leland, in the Critic.

THE proposal to establish a college at one of the British universities, where boys would receive, between the age of sixteen and eighteen, a training which should fit them for a business career, has not (says the Pall Mall Gazette) been very well received by the public. The proposition is in the nature of a half-measure, and is for that reason of no great value. Schools for commercial education are needed in this country. Boys who will go into a business house at eighteen might spend the last two or three years before that time in a more useful and more special kind of education than that of our public schools. But this education should be given at separate institutions unconnected with the universities. Their object would be not to give the boys the "advantages of a university education," but to turn them into men of business fit to compete with welltrained Belgians and Germans.

A DEPUTATION from the city of St. Thomas and the adjoining townships of Southwold and Yarmouth left for London lately to wait upon Mr. G. W. Ross, Minister of Education, with a view to securing a change in the law by creating Southwold, Yarmouth, Port Stanley and St. Thomas a separate district for high school purposes, and relieving the townships and village named of the tax of \$890 which is now assessed against them for the Vienna, Aylmer, and Dutton High schools, in which they are not interested and from which no benefit is derived by them. The deputation consisted of M. Payne, reeve of Port Stanley; W. O. Pollock, reeve of Yarmouth; D. Turner, reeve of Southwold; Mayor Midgley, of St. Thomas; D. K. McKenzie, chairman of the Board of Education, and Messrs. Principal Miller, of the Collegiate Institute, A. McCrummon, J. H. Coyne, and Robt. Miller. The legislation has been called forth in view of the action of the county council in cutting down the grant of the St. Thomas Collegiate Institute from \$1,700 to \$1,200.

SOME members of parliament have recently been advocating the establishment of a "University of Commerce," as a means of levelling up the education of English youths designed for a mercantile life to the same standard of attainment as that reached by foreigners. We will not comment on the odd use of "University," as applied to an institution of a purely technical character. What we wish to point out is that, if this "University," already existed here in full working order, it would not save us from these terrible Germans. The Times correspondent in Brussels, writing recently to his paper, pointed out that Belgium possessed such a University of Commerce at Antwerp, the Institut Supérieur de Commerce, and subsidised by the State. This institution is in a flourishing condition, and is considered to answer well the purpose for which it was established. Great care is bestowed there on the theoretical and practical teaching of modern languages, but this does not prevent Antwerp and Brussels being overrun by German clerks, as well as London and the other large English towns.—Educational Times (London, Eng.).

MR. FROUDE has written a very interesting letter to the Pall Mall Gazette on the teaching of English literature at the Universities, in which he says: "I hesitate to say that an understanding of English literatute is impossible without a knowledge of Greek and Latin literature. Many of our very best writers knew little or no Greek and Latin. Shakespeare had 'small Latin and less Greek.' Pope translated Homer, but was a poor scholar. De Foe, Bunyan, Burns, Byron, Carlyle, Cobbett, Charles Lambthese and many other names occur to me which disprove the position as it concerns writers; and I think you might find very good students of English literature also equally ignorant. The Scandinavian literature, not the classical, was the cradle of our own. At the same time I regard the Greek and Latin literature as the best in the world, as superior to the modern as Greek sculpture is superior to the schools of England and France; and that no one can be a finished scholar and critic (I do not say writer) who is ignorant of it. Our national taste and the one of the national intellect will suffer a serious decline if it ceases to be studied among us."

THE Mail has the following:-There is likely to be a conflict of interests between Kingston and Ottawa as to the desired establishment of the School of Practical Science for Eastern Ontario. Mr. Mowat, in his answer to the Kingston deputation, intimated that Ottawa might lay claim to assistance for such a project. This is explained by an interview in the Ottawa Journal with Principal McCabe, of the Ottawa Normal School, who says that when he heard of the Kingston project, he thought it his duty to at once ask the Ontario Government that the school should be established at Ottawa in connection with the Normal School, for the following reasons: - That the Normal School being a Government institution already well equipped for practical science work, would save the expense of endowing another institution; also that the fact of the Geological Museum being situated in Ottawa, in which are stored the best specimens of mineral and other deposits from all over Canada, would not necessitate the establishment of a museum in connection with the school. Then again, the Ottawa Valley is acknowledged to be the richest place in the Province in mineral deposits, which is another great advantage Kingston does notpossess. Principal Mc-Cabe's idea will probably be vigorously pushed here.

Literature and Science:

THE POSSIBILITIES OF AMERICAN FICTION.

"ONE great drawback to good work in fiction is the financial inability of capable writers of both sexes to put their work before the community. It is useless to say that publishers are ready to seize everything new, and eager to give the public the latest thoughts. This may be true of some publishers, but many are as eager to make a hit and reduce fancies or ideas to hard coin as any merchant in the land. They publish books to make money, and a striking title is often prized more than a good plot. The publishers themselves are human and often short-sighted. Every one knows that some of the best works ever given to the world were knocked about from publisher to publisher and finally sold for a song. Why is this? Back of the publisher are 'the readers of manuscript,' the one man and one woman, sometimes the two men and one woman, who must sit in judgment on the author's work. With all due respect for the judicious men engaged in publishing books, it is an undoubted fact that these readers do not always possess especial fitness or knowledge of the works in question. It may sound like treason, but it is undoubtedly true that many excellent volumes of fiction are now hidden away, condemned by some 'reader' far less experienced and gifted than the writer, which, if published, would rank high and benefit the reading world. Any one who spends much time in an editorial capacity knows that mistakes as to acceptance and rejection constantly occur. It is the merest folly to talk of the 'individuality of the writer' and 'the reality of experience which is the secret of success' when a book of real experience, far more captivating and filled with moving, thrilling life, is sat down upon, behind the scenes of some publisher's desk, by men and women who 'think it will not pay.' Why talk of the reality of experience? The real enemies of good fiction are the unappreciative, inexperienced 'readers,' who can no more understand the sympathetic life of the people than a mere mechanical painter can understand the good points of the Rembrandt in your library. They are good men, good women, who are paid to sit in judgment on the heart-throbs of real workers, real thinkers, real doers, and their total inability to write a good work of fiction renders them unfit to decide upon the work of those who already have the public ear and are eager to give 'our own conflicts a place in this fiction of the day.' The possibilities of American fiction are enormous, the life of the American people fruitful, but the outcome will not be satisfactory away; the victim falls from his eminence.

until genius and application, ideas and impersonation are not subjected to the crucial test of incompetent 'readers,' nor while publishers pay more attention 'to making a hit,' than the merits of a volume. The fault does not rest with the makers of fiction, but its producers in the market," so, at least, says the Boston Globe.

YOUTHFULNESS IN SCIENCE.

EVERY college instructor knows only too well how the more active-minded students are eager to grapple with the mightiest subjects, all in the untested pride of developing intelligence. Their themes are: "The Progress of Democracy," " The Comparison of French and English Literature," "Solar Energy," " The Datwinian Theory, " "The Origin of Mind;" in short, all the vastest problems, such as a lifetime is inadequate for. Most of us can gather from our personal recollections some examples of the foible. Youth does not know its measure. Only majurity, and not always even majurity, realizes how tiny and feeble is the force of the individual when it turns to attack the world problems, which stand more mysteriously and longer than the sphinx to perplex and baffle humanity. The adolescent mind is confident; for it has never been beaten, since it has never engaged in any real fighting. It proadly believes in its own success, and it is but too apt to look disdainfully ongreat thinkers, because they left more to be thought. It glories in generalizations, and is gladly indifferent to the harassing details and preliminaries, with which, if it continues active, it will afterwards be chiefly and sensibly occupied. The young man is often a would-be revolutionist. He is surprised that older and wiser and better men are so benighted. Let us not be misunderstood. The young man we are characterizing is the one in whom the faults his years are prone to are strongly accented. We have no intention of wholesale condemnation toward a class to which we have belonged, and therefore may be supposed to think of respectfully. If the unfortunate individual or type we are discussing betakes himself to science, he may do useful and praiseworthy work, but he is pretty sure to injure its meritorious part by adjuncts of misshapen generalization, and of criticisms very bad in taste and unjust in substance. His pages show a saddening spectacle of overgrown self-confidence, betrayed by the tone of expression, by the ill-repressed laudation of his own theories, and the had-mannered fault-finding with others, perhaps merely because their observations, without which the young man could have done nothing, were not exhaustive of the field. Next follows pitiless criticism; the pedestal of flimsy logic is dashed

The specious argumentation is reft, and the man's ignorance is exposed nakedly. Last comes the cruel abasement, all the worse to bear because it is the sequel of elation. And still the young man must be grateful if the late lesson can be learned by his aching and repentant mind. Would that the fire of the soul always purified, and never consumed! -Science.

SCIENTIFIC TRUTHFULNESS OF GERMAN WORKS.

In the production of elaborate works on natural science for the general scientific reader or student, the Germans are facile princeps. Besides bearing evidences of thoroughness and general accuracy, such works usually present a homogeneity and completeness rarely attained in English ones of a similar class. To vivacity of expression and the more purely literary embellishments or literary codiments, they rarely make pretensions; and yet he who has read in the original the writings of such authors as Haeckel will readily concede that the German style may be not a whit less charming, less simple, and less interesting than the French or English, while at the same time combining, what is often such a fatal defect in many French works on general natural science, a rigid regard for scientific truthfulness. Buffon made many book naturalists, but he has much to answer for in the selfsufficient complacency and inexactness of many of the French naturalists who have succeeded him. It is a rare talent that can excel in attractive literary exposition, and yet command the respect of the critical scientific naturalist. - Science.

IT may not be known to some what causes the different colours of bricks. The red colour of brick is due to the iron contained in the clay. In the process of burning, the iron compounds are changed from the ferrous to the ferric condition and rendered anhydrous, thus developing the colour. Certain clays-like those in the vicinity of Milwaukee, for instance-contain little or no iron, and the bricks made from them are light or cream-coloured.

THE Madras Government is about to engage in the cultivation of jalap. It was found that the plant grows very well there, and some years ago a large quantity of tubers were given to private individuals in order to encourage them to grow the remedy. But the demand this year from the Madras Medical Department was for 1,300 pounds, and only 400 pounds could be obtained. So the Government has decided to cultivace jalap itself until such time as private growers are in a position to supply the

Special Papers.

LEFT-HANDEDNESS.—A HINT FOR EDUCATORS.

DR. DANIEL WILSON, president of the Royal Society of Canada, has lately contributed a paper to the Proceedings of that society on the subject of left-handedness, to which he has managed to give an unexpected and very practical interest, affecting all who have children or who are concerned in their education. The author had written previously on this subject, but not with such full and effective treatment. He reviews the various causes to which the general preference of the right hand has been ascribed, and also those to which the occasional cases of lest-handedness are attributed, and finds them mostly unsatisfactory. He shows clearly that the preferential use of the right hand is not to be ascribed entirely to early training. On the contrary, in many instances where parents have tied up the left hand of a child to overcome the persistent preference for its use, the attempt has proved futile. He concludes that the general practice is probably due to the superior development of the left lobe of the brain, which, as is well known, is connected with the right side of the body. This view, as he shows, was originally suggested by the eminent anatomist, Professor Gratiolet. The author adonts and maintains n with much force, and adds the co-relative view that "left-handedness is due to an exceptional development of the right hemisphere of the brain."

A careful review of the evidence gives strong reason for believing that what is now the cause of the preference for the right hand was originally an effect. Neither the apes nor any others of the lower animals show a similar inclination for the special use of the right limbs. It is a purely human attribute, and probably arose gradually from the use, by the earliest races of men, of the right arm in fighting, while the left arm was reserved to cover the left side of the body, where wounds, as their experience showed, were most dangerous. Those who neglected this precaution would be most likely to be killed; and hence, in the lapse of time, the natural survival would make the human race. in general, "right-handed," with occasional reversions, of course, by "atavism," to the lest-handed, or, more properly, the ambidextrous condition. The more frequent and energetic use of the right limbs would, of course, react upon the brain, and bring about the excessive development of the left lobe, such as now generally obtains.

The conclusions from this course of reasoning are very important. Through the effect of the irregular and abnormal development which has descended to us from our bellicose ancestors, one lobe of our brains and one side of our bodies are left in a ne-

glected and weakened condition. evidence which Dr. Wilson produces of the injury resulting from this cause is very striking. In the majority of cases the defect, though it cannot be wholly overcome, may be in great part cured by early training, which will strengthen at once both the body and the mind. "Whenever," he writes, " the early and persistent cultivation of the full use of both hands has been accomplished, the result is greater efficiency, without any corresponding awkwardness or defect. In certain arts and professions, both hands are necessarily called into play. The skilful sur geon finds an enormous advantage in being able to transfer his instrument from one had to the other. The dentist has to multiply instruments to make up for the lack of such acquired power. The fencer who can transfer his weapon to the left hand, places his adversary at a disadvantage. The lumberer finds it indispensable, in the operations of his woodcraft, to learn to chop timber right and left handed; and the carpenter may be frequently seen using the saw and hammer in either hand, and thereby not only resting his arm, but greatly facilitating his work. In all the fine arts the mastery of both hands is advantageous. The sculptor, the carver, the draughtsman, the engraver and cameo-cutter, each has recourse at times to the left hand for special manipulative dexterity; the pianist depends little less on the left hand than on the right; and as for the organist, with the numerous pedals and stops of the modern grand organ, a quadrumanous musician would still find reason to eavy the ampler scope which a Briareus could command." That all this is true is abundantly shown by the numerous examples cited by the author,-from the greatest of artists, the left-handed Leonardo da Vinci, to the distinguished ex-president of the American scientific association, Prof. Edward F. Morse, and (we may add) to Dr. Wilson himself, both of woom are known to be accomplished draughtsmen with this tonneglected hand. In view of these facts, it evident that few more important subjects can be offered for the consideration of educators than that which is presented in this impressive essay. - Science, Vol. IX., No. 211, pp. 148, 149.

FOR a free play of the faculties the natural method of observation and actual experience cannot be surpassed, though they can be supplemented and assisted by artificial means.—Ex.

THERE are 172 specimens of blind creatures known to science, including crayfish, myriapods, etc. They are mostly white, whether from lack of stimulus of the light, or from bleaching out of the skin. Some species have small eyes and some have none.

Educational Opinion.

A MOTHER'S TALK TO GIRLS.

You would not be surprised if I were to ask your brother what he intends to make of himself, but if I put the query to you perhaps you might open your eyes in astonishment. You expect to go to school until you graduate and then become a young lady in society and to have a nice time. Do you intend to go to parties and to have beautiful costumes? Who will foot the bills? "Oh, papa, of course," and in return you will embroider him handsome slippers on material for which he pays and have them soled at his expense at figures three times as great as would pay for a pair ready-made, and then you will think yourself very dutiful. You will make banners to hang on every spare wail space, and crazy quilts for yourself and friends at an enormous expenditure of time and money. You will dust the parlour furniture and take care of your own room and fancy yourself industrious; you will help the dressmaker plan elaborate garniture for your new dresses, and call it being economical. Perhaps you practise the piano an hour daily, belong to a reading club, and call yourself studious, but what is to be your life-work? If called upon to-day to earn your own living is there any one thing you could do so well that some one would pay you to do it? You don't expect to have to work for a living, yet your brother does. He would feel ashamed to calculate on being supported all his life. Why should not your brother he supported as well as you? But what is the use of a girl's learning a business when the chances are that she will get married and never have an opportunity of following the vocation which has cost her so much time and labour? To maintain her self-respect, if for nothing else.

Why should you live an aimless life? The world needs workers; why not be one of them? If you have a talent—and who his not?—why not cultivate it so as to make it of avail to you? Why not be ambitious to do something and to do it well? The time you put upon it will not be lost, for it will develop you, it will make you stronger, more worthy of living.

True worth is in being, not seeming; In doing each day that goes by, Some little good, not in the dreaming Of great things to do by and by,

Learn a trade, a profession, a business. Find your work and make a place for yourself in the world. Then, if you are promoted to the dignity of wifehood and motherhood, and must lay aside your less important business, you will not be less worthy, less the woman, or less the mother. The very knowledge that you can support yourself will perhaps relieve you of much dreadual

foreboding. Many a woman has found use for her skilled hands in the support of an invalid husband and helpless children. Then, too. I think it will make you more careful in the choice of a husband. You will not be planning to marry for wealth or a home, and can afford to wait till you can marry for love. You will think more of yourself and thus demand more of the man whom you honour with your heart and hand, and, as your ultimate destiny will doubtless be to marry, no matter what other vocation you may choose, be sure and obtain a practical knowledge of all the duties of woman in the home. -Mary A. Allen, M.D., Ithaca, N.Y., in an Exchange.

COLLEGE TRAINING.

In his article in The Forum, on " How I was Educated," the Rev. Dr. Vincent writes :- "To state the matter fairly and fully at the outset, I must confess that I have never been at college. The reader can scarcely conceive the grief, made up of regret, discouragement and mortification, which this fact has occasioned me through most of the years of my mature life. Even now I sometimes feel the sting of it in the society of college men. It has been my 'thorn in the flesh.' I have never found entire relief from its sharp prickings in the long list of distinguished men and women in both hemispheres and in all ages-writers, artists, sages, statesmen-who never enjoyed the benefits of a college training; nor of recalling the melancholy failure, in so many ways of so many men who have been matriculated, educated, graduated, and be-titled by the greatest universities; nor in the 'practical' man's notion that classical education unfits a man for business. And certainly, I have never felt the comfortable self-complaceny which is sometimes attributed to the selfeducated man. The, to me, uncomfortable fact that I never even entered college, I have through all these years honestly faced and deeply deplored. The genuine regret which I have felt has supplied a large part of the conviction and inspiration under which I am now working for the increase of faith in the value of the college on the part of the average American citizen and parent. By voice, by pen, by example, in the ordering of my own son's education, and by the Chautauqua service, I have for many years devoted my energies to the cause of the higher education; and I make this statement concerning my relation to the college to place myself with the advocates of liberal culture as against the mistaken and mercenary theory of the utilitarian; and thus I make humble protest against the pitiable vanity of those self-educated men, who, not content with making boast of personal achievement, depreciate educational advantages which they failed to secure."

WANTED, SENSIBLE WOMEN.

SPECIALIZED education does not necessarily create companionable or even sensible women; else, by parity of reasoning, would all professional men be personally charming and delightful, which undoubtedly they all are not. A girl may be a Greek scholar, a brilliant mathematician, a sharp critic, a faultless grammarian, yet be wanting in all personal tact and temper, clear observation. ready sympathy, and noble self-control which make a companionable wife and a valuable mother. Nor is unprofessional or unspecialized instruction necessarily synonymous with idleness and ignorance; while a good allround education is likely to prove more servicable in the home and in society than one or two supreme accomplishments. Many of us make the mistake of confounding education with acquirements, and of running together mental development and intellectual specialization. The women of whom we are most proud in our history, were not remarkable for special intellectual acquirements, so much as for general character, and the harmonious working of will and morality. The Lady Fanshawes and Elizabeth Frys, the Mary Carpenters and Florence Nightingales, whose names are practically immortal, were not noted for their learning, but they were none the less women whose mark in history is indelible, and the good they did lives after them and will never die. And taking one of the, at least, partially learned ladies of the past-is it her Latinity and her bookishness that we admire so much in Lady Jane Grey? or is it her modesty, her gentieness, her saintly patience, her devotion?-in a word, is it her education or her character?-the intellectual philosopher or the sweet and lovely and noble woman?—The Fortnightly Review.

MAKING VERBS OF NOUNS.

THE tendency of American newspapers to take unwarrantable liberties with certain nouns is one of the most unsatisfactory features of contemporary journalism. To turn a desenceless noun into an aggressive verb is an act as lawless as it is unpunishable. When a reporter asserts that "John Smith suicided" he makes his meaning clear, but he shocks the nerves of those conservatives who base their English on dictionary precedent. 'Interview" used as a verb is another outcome of journalistic independence. But even the two words cited are by no means themost striking illustrations of the tendency referred to. A Western paper says that one of its subscribers "Thanksgave" at home. Shades of Noah Webster, what a word! It is on a par with another provincialism which sometimes shocks the nerves in such a sentence as the following:—"James X—— and his brother Sundayed in town." The list of these vagabond verbs might be indefinitely extended, but the above will suffice.

It seems to be a characteristic of our people to take the shortest road to the goal of their desires. The process of turning nouns into verbs is one of the most effective methods of making one word serve the purpose of two or three. But is elegance to be sacrificed for so petty an object?—Ex.

Mathematics.

ALGEBRA SOLUTIONS.

(Continued from page 918.)
(See page 871.)

8. Assuming $x^4 + px^3 + qx^2 + rx + s$ to be a perfect sq., let it be represented by $(x^2 + ax + b)^2$.

Then $x^4 - px^3 + qx^2 + rx + s$, and $x^4 + 2ax^3 + (a^2 + 2b)x^2 + 2abx + b^2$, are identical;

$$\begin{array}{l} p = 2a \\ q = a^2 + 2b, \\ r = 2ab, \\ s = h^2, \end{array}$$
 and
$$\begin{array}{l} p^2 s = 4a^2 h^2, \\ = r^2, \\ \text{and } q = a^2 + 2h, \\ = \frac{p^4}{4} + 21 s. \end{array}$$

9. Let a = 1, a, and a + 1 be the numbers. The sum of their cubes is $= 10 \ 3a(a^2 + 2)$ which is $= 10 \ 3a$.

10. $2x = a^n + b^n$, $\therefore 2nx = na^n + nb^n$. Valued required

vamen required

$$= \frac{a^n}{na^n - nb^n} + \frac{b^n}{nb^n - na^n}$$

$$\frac{a_n}{na-nb} - \frac{b^n}{na^n-nb}, = \frac{a_n-b}{n(a^n-b^n)} = \frac{1}{n}.$$

11. Exp. = 1. It presents no difficulty.

12. Since the two equations hold for the same value of x,

 $\begin{array}{c} \therefore \ aa'x^2 + a'bx + a'c - 0, \\ aa'x^2 + ab'x + ac' = 0, \end{array}$ hold for the same value of x.

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

$$\therefore x = \frac{a'c - ac'}{ab' - a'b}.$$

Again $ac'x^2 + bc'x + cc' = 0$, and $a'cx^2 + b'cx + cc' = 0$,

$$\therefore (a'c - ac')x^2 = (bc' - b'c)x,$$

$$\therefore x = \frac{bc' - b'c}{a'c - ac'}$$

$$\therefore \frac{a'c - ac'}{ab' - a'b} = \frac{bc' - b'c}{a'c - ac'}$$

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

J.H.T.

A PROBLEM BY W.J. C. SHARP, M.A.

In a circular cubic, prove that (1) the directrices, or chords of contact, corresponding to concyclic foci, pass through the centre of the focal circle, which is the point of contact of one of the tangents parallel to the real asymptote; also (2) the four centres lie at the intersections of the cubic and a rectangular hyperbola which has an asymptote in common with the cubic.

Solution by Prof. Nash, M.A.

A bicircular quartic is the envelope of a circle whose centre is on a given conic, and which cuts a given circle orthogonally. The bicircular quartic becomes a circular cubic if the conic is a parabola. In either case the points of contact of the variable circle with its envelope lie upon a line passing through the centre of the fixed circle. Since this is true in the general case, it is also true when the radius of the variable circle is evanescent, i.e., when the circle reduces to a focus, and therefore the chord of contact of tangents from a focus passes through the centre of the circle upon which the focus lies.—From Educational Times.

Methods and Illustrations

ENGLISH LITERATURE.

THOMSON'S "SEASONS."

- 1. DESCRIBE the condition of English literature during the period preceding Thomson's appearance as a poet.
- 2. Write a note on the character of Thomson's poetry.
- 3. Compare Thomson and Cowper as descriptive poets.
- 4. Give in your own words, introducing quotations, the substance of either of the following:
 - (a) The story of Lavinia and Palemon.
- (b) Description of the evening occupation
 - (c) Description of industry and its effects.
- 5. Quote, with proper punctuation, either of the following: -
 - (a) The 17 lines beginning-
- "Her form was fresher then the morning rose."
 - (b) The 24 lines beginning-
- "Oh may their eyes no miserable sight, save weeping lovers, see.'
- 6. Quote any six single lines that you think particularly meritorious.
 - 7. Illustrate from the "Seasons";
- (a) Characteristics of the writers of Thomson's time.
 - (b) Characteristics peculiar to Thomson.
 - 8 Write brief notes on the following:
 - (a) Doric reed.
 - (b) The summer suns concacted.
 - (c) Libra weighs in equal scales the year.
 - (d) Arcadian song.
 - (e) Full mouthed cry.
 - 9. Paraphrase the following lines:
- "Hence every form of cultivated life In order set, protected, and inspired, Into perfection wrought. Uniting all. Society grew numerous, high, polite, And happy. Nurse of art, the city reared In beauteous pride her tower-encircled head; And, stretching street on street, by thousands diew.

From twining woody haunts, or the tough yew To hows strong-straining, her aspiring sons.

CLOUGH'S "AS SHIPS BECALMED."

- 10. Give, in few words, the substance of the poem.
- 11. "Through winds and tides one compass guides." What do you understand the "one compass" to be? If both were guided by one compass, how can the divergence be accounted for?

BRYANT'S " EVENING WIND,"

- 12. Write a brief sketch of Bryant's life, mentioning his chief works.
- 13. "The conception of the poem is truly portical," Discuss.
- 14. Point out the chief beauties of the poem.

EXTRACT FROM RUSKIN IN HIGH SCHOOL READER.

- giving the general divisions, the leading propositions under each division, and the arguments by which they are supported.
- 16. State clearly the three lessons which, according to Ruskin, the arts and labours of life teach us of life's mystery.
- 17. Explain the dilemma in the last two paragraphs.
- LONGFELLOW'S " HANGING OF THE CRANE.
- 18. Name the chief features of Longfellow's style. What is the principal charm of this poem?
- 19. To what does the poet compare the visions of the luture?
- 20. Quote, or refer to, any passiges that you think faulty, giving reasons for your opinion.
 - 21. Write brief notes on the following:
 - (a) Hanging of the Crane.
 - (b) Rolled on its harmonious way.
 - (c) Ariadne's Crown.
 - (d) Knight-ercantry.
 - (e) Sunny regions of Cathay.
 - 22. Write a brief epitome of the poem.
- 23. Name other American poets.-Peterborough Daily Evening Review.

HOIV TO STUDY HISTORY.

IT has always seemed to me very creditable to the brains of children that they are apt to rebel against the study of history, as it is usually presented to them. Why should any boy or girl sincerely wish to know in which Olympiad the victory of Coræbus took place, or whether Ottoman was or was not the son of Ortogral? When the witty Madame du Chateiet owned to Voltaire her profound indifference as to this last point, he did not reprove her, but rather praised her. He told her that she was quite right in her indifference, but that if history could only be taught as it should be-with the really unimportant names and dates left out, and those only retained which really throw light on manners or great events-history would then become for her the most interesting of all studies. Then, when Voltaire himself wrote history, he carried out his own theories, and laid the foundation of the modern school.

There still remain among us many educational institutions where historic teaching means only a list of names, or a complex chart or "River of Time." A graduate of a Boston grammar school once told me that she was required in her school days to put on paper every date that occurred in the portion of Worcester's History studied by the class. On a large sheet she made five columns of these dates; she then learned them by heart so thoroughly that she could repeat them backwards, and at the age of twentytwo she had forgotten every one.

Warned by experience, when she herself became a high school teacher she adopted 15. Reproduce the extract in brief outline, i a wholly different plan. Taking the successive periods, she gave her pupils in each case a few outlines and a few dates from the manual. Then she gave a few questions, of which they were to learn the answers for themselves, in such books as they could find in the school library or elsewhere. They were to bring to her all the light they could obtain: she was to add whatever she had. From time to time wider examinations sum. med up the whole. This method often led to prolonged study of particular points. Thus the Reformation occupied one paragraph in the manual they used, but to that one paragraph her class devoted six lessons. The pupils eagerly discussed every point of the Reformation, talking it over-Protestants and Catholics together-with perfect freedom, and at the end of the time they passed a written examination that amazed her.

> Nor did the benefit end here. Her pupils found their love of books rapidly develop when the charm of a special investi, ation was offered to them, and one young girl told her, several years later, that her whole intellectual activity dated from this course of lessons, and that whereas she had before been content with an exclusive diet of Mrs. Southworth's novels, she had ever since demanded better food.

> I am aware that I am suggesting nothing new to teachers of experience. I am aware, also, of the obstacles to any course that demands original research on the part of pupils. But, after all, it is only this flavour of original research, on however small a scale, that makes history take any real root in the mind, and a single period or event explored in this way fixes the very facts more vividly on the mind than if they had been learned by heart from a neat little compendium, all conveniently arranged beforehand by somebody else.

> Of course, history can be no more learned without names and dates than a body can exist without a skeleton. But the driest anatomist does not seriously maintain that the skeleton is the body, and that fleth and blood have no business to exist. Yet the anatomical teacher of history does believe this, and grows indignant when you ask that his department should consist of anything but bones. For myself, I believe in the bones-in their place. No pupil should be permitted to take the picturesque and romantic part of any period without a perfectly connected framework of dates for its vertebral skeleton. But a few dates will answer for this, and the fewer they are the more likely they will be to remain in the mind. It is better to learn only twenty of these, and carry them through life, than to

> > (Continued on page 938.)

THURSDAY, MARCH 3, 1887.

INDUSTRIAL OR TRADE SCHOOLS.

PREPARATION for the calling of a skilled workman lies outside the ordinary domain of school life. It is in special technical schools, says Mr. Fitch in his lectures on teaching, that the craftsman should be helped to study the philosophy of his own trade. Such schools under the name of Ecoles d' Apprentis in France, or of Technical and Trade Schools in Switzerland and Germany, have long existed and done excellent work. Very few such institutions have succeeded in England with the exception of the Trade School at Bristol founded by the late Canon Moseley, and the Trade School established under the Endowed School Act at Keighley. Now that the old system of apprenticing to masters has died out, the best substitute for it is to be found in the establishment of schools which shall be accessible to the scholars who have left the primary schools, and in which the instruction in manual arts, though based on science, shall be consciously directed to practical ends.

The function of a Trade or Technical School is rather industrial than educational. It is to teach science in its application to industry and with a special view to the needs of the skilled artisan. course should include applied mechanics, experimental physics, electricity, magnetism and heat, chemistry, descriptive geometry, the properties of matter, measurement of planes and solids, and the principles of construction generally. There should be a workshop, a museum of tools and implements, a chemical and physical laboratory, in which the learners can perform experiments under supervision; and the classes should be so arranged and divided that the learner may obtain an insight into the scientific basis and the practical rules of the particular crast which he intends to follow.

There should be no great difficulty in the establishment of such schools in all great industrial centres; not even in devising a liberal system of inducements by way of scholarships or otherwise to encourage the most promising scholars from the primary school to devote a few months to such special studies before entering on the business of their lives. Enormous sums have been bequeathed in England for the purpose of apprenticing boys to trades. They are the survivals

from a time when the word "apprentice" had a real meaning, and when the provision of such funds was one of the wisest forms of benevolence. But the conditions of industrial life are so altered that these large funds have ceased to serve their intended purpose, and are too often only disguised doles of a mischievous kind. The disposition of such funds which will be most nearly akin to the intentions of the original donors is obviously the establishment of technical schools and of such bursaries or scholarships as may facilitate access to them.

Many things, Mr. Fitch very truly says, are very well worth knowing, which it is not the business of a school to teach. The world is a great school in which we are to be learning all our life, and he who brings into it quickened facilities will learn its lessons well by actual experience. But a child does not come to school to be told that a cow has four legs, that fishes swim or that bread is eatable, nutraious, soft, white, and opaque. Nor does he come there to learn the special business of a farmer, or of an engineer, or of a shoemaker. He is there to learn precisely those things which could not be so well learned out of doors, and to gain that sort of capacity and awakening which will enable him to acquire readily the lessons of common life and to turn them to the best account.

The best method of discovering what is the proper province of the school, is to consider what sort of lives your scholars lead, and the sort of homes they come from. In the houses of the very poor there is probably little talk going on such as would draw the attention of children to the most interesting facts of nature and of daily life. So in schools in which children of this class are found, conversational lessons on common things, on birds and beasts, and on every-day events, are very useful and even necessary. If children live in towns and seldom see green fields, occasional lessons on the crops, the aspects of nature and on rural life are legitimate parts of a school-course. But if children come from orderly and intelligent homes, in which they daily hear subjects discussed which are worth talking about, and if they know something about the country, lessons of this kind are less necessary. Bear in mind that anything you can do to make the knowledge derived more useful, is worth doing, because it helps to make the future study of science easier. But do not imagine that everything of which it is a shame for a child to be ignorant, is necessarily your business to teach. The right rule of action appears to be this. It is no concern of the teacher to teach in schools that which an observant and intelligent child would learn out of doors; but it is the concern of the teacher so to teach him as to make him observant and intelligent.

Nor is it incumbent on teachers to anticipate the requirements of future life by giving the knowledge suited to this or that employment or profession. To do that would not only be to do grave injustice to the child who did not mean to adopt the particular calling; but it would injure him who did, by prematurely specializing his knowledge and directing his thoughts into a certain money-making groove. duty of the school is to call forth such activities and to give such knowledge as shall be available alike in all conceivable professions or employments; and it can do. this rather by considering oftener what intellectual wants are human and universal. than what is the way in which any particular child is to get his livelihood. A welleducated gentleman does not, it is true, know so much about a steam engine as an engineer, nor so much about the rotation of crops as a farmer, nor so much about book-keeping as a city clerk, but he knows a great deal more about all three than either of them knows about the other two; and this simply because his faculty of thinking and observing has been cultivated on subjects chosen for their fitness as instruments of development, and not on subjects chosen with the narrow purpose of turning them to immediate practical use.

There can be little doubt that in the education of the future a larger space will be occupied than heretofore by the discipline of the inductive sciences, and it will be well for those of our readers who are entering the teaching profession to accept this as inevitable and qualify themselves both to meet the want and to guide a movement which must for good or evil have important consequences. It is for them to take heed that the newer knowledge shall be not less educative and inspiring than the old, and that the word "science "shall not degenerate into the symbol for what is empirical and utilitarian, nor for another kind of memory work.

He who sets himself to do this has before him vast fields of usefulness.

مسجيرت وحد

No apology will be needed from us for quoting largely from Mr. Fitch, as the subject of industrial and trade schools is one at present claiming a large share of attention, and as upon this subject Mr. Fitch may be regarded as an authority.

OUR EXCHANGES.

THE March Atlantic begins with Mr. Lowell's poem, "Fancy or Fact?"; Dr. Holmes writes an account of his recent trip abroad, called "Our Hundred days"; there is a paper on "Théophile Gautier," by James Breck Perkins, and this is followed by the second part of Lawrence Saxe's "Lady from Maine." Agnes Repplier com butes an article on the "Curiosities of Criticism," and William Cranston Lawton has a poper on "The Hippolytos of Euripides." Mrs. Oliphant's and Mr. Aldrich's "The Second Son," and Marion Crawford's " Paul Patoff," are continued; there is a criticism of "Longfellow's Art," by Mr. Horace E. Scudder; and there are also criticisms of "Agnes Surriage," of books about actors, and of Recent Poetry. Louise Chandler Moulton contributes a poem called "Come Back, Dear Days!" and the Contributor' Club and Books of the Month finish the magazine.

THE numbers of The Living Age for February 5th and 12th contain, China, by the Marquis Tseng, Asiatic; Jubilee Reigns in England, National: The Zenith of Conservatism, by Matthew Arnold, and Rural Life in Russia, Nineteenth Century; Benvenuto Cellini's Character, by J. Addington Symonds, and The Present Position of European Politics, Fortnigitly; The Land of Darkness, Blackwood; The Seventh Earl of Shaftesbury: Incidents in his Life and Labors, Leisure Hour; Some recollections of Charles Stuart Calverley, Temple Bar; French Finance, Pio Nono's Will, Lord Iddesleigh, and the Progress of Savage Races, Spectator; An Ancestor of the Czar, and Farm Life in the North a Century Ago, St. James' Gazette; Some Narrow Escapes, All the Year Round: Inecacuanha Cultivation in India, Nature; The Excavation of the Great Sphinx, Times; On a Jury, Globe: with instalments of "The Strange Story of Margaret Beauchamp," and "Richard Cable, the Lightshipman," and poetry.

THE numbers of The Living Age for February 19th and 26th contain Lord Shaftesbury's Life and Work, Quarterly; The Greeks in Asia, The Indian Bourbons, and the Wellesleys in India, Asiatic Quarterly; Last Words with General Gordon, Fortnightly; Moss from a Rolling Stone, Blackwood; The Highlands of San Paulo, Month; A Few Manchester Worthies, Temple Bar; The " Man-eating " elephant of Mundla, Chambers'; A Belgian Christmas Eve, All the Year Round; Amateur Art in the Seventeenth Century, Spectator; How General Gordon Saved My Life, Pall Mall; The Pilgrimage to Kerbela, St. James'; Pirates, Past and Present, Telegraph; with instalments of "Jack and Minory," "The Robber's Cave " and " Richard Cable " and poetry. For fifty-two numbers of sixty-four large pages each (or more than 3,300 pages a year) the subscription price (\$\$) is low: while for \$10.50 the publishers offer to send any one of the American \$4 monthlies or weeklies with The Living Aze for a year, both postpaid. Littell & Co., Boston, are the publishers.

REVIEWS AND NOTICES OF BOOKS.

Some years ago the author of "John Halifax, Gentleman," published a "Larable for Young and Old," entitled "The Little Lame Prince and his Travelling Cloak," with twenty-four illustrations by J. McL. Ralston. The volume has been out of print for some time, but we understand that a new edition is to be issued immediately by Messrs, McMillan & Co.

RESIDES the "original" MS, book of "Alice in Wonderland," which has been published this week, and the dramatization of the story, we are also promised another variation on the ever-fresh theme. This is a selection of some twenty-four of Mr. Tenniel's drawings, enlarged and coloured under the superintendence of the artist. The volume will be called "The Nursery Alice."

D. C. HEATH & Co. have published the following new books on Education: Campayre's History of Pedagogy; Gill's System of Education; Radestock's Habit in Education; Rousseau's Émile; Pestalozzi's Leonard and Gertrude; Richter's Levana: The Doctrine of Education; Rosmini's Method in Education; Hall's Methods of Teaching History; Bibliography of Pedagogical Literature; Lectures to Kindergartners; Monographs on Education.

It is said that when the unabridged edition of Webster's Dictionary first appeared (without a definition of the word unabridged), that great scholar, Caleb Cushing, wrot a criticism on the stupendous work, saying that, for its size, it had as few errors as could be expected. This purz'ed the editors, who asked an explanation of Mr. Cushing's information on the subject of those errors. In reply Mr. Cushing marked fire thousand mistakes in the volume which had been presented to him, and sent it back.

"A DELIGHTFUL little handbook is 'The Merchant of Venice,' as issued by the Cassells, with a historical introduction of fifteen pages by Prof. Morley, and 'The Adventures of Gianetto,' the story of the 'Jew who wanted for his debt law a pound of the flesh of a Christian.' 'The three cakes,' and the poem of 'Gernutus, the Jew of Venice, all of which Shakespeare is supposed to have made use in composing his famous play, By the bye, we presume that were such a play written in the present age, it would be called a 'comedy drama.' Shake-peare's processes show what legitimacy means in the use of pre-existing material. This is a very different thing from plagiarism, especially when the material so used is wrought into forms which differ almost as much from the original as the product of the loom does from that which goes into it."-N. Y. Evening Telegram.

THE first number of M. ray's Magazine does not offer a single article more than average merit. The "Byronia," which forms the p dee de resistance, is confined to a simple page of verse,

"Opening Lines to Lara," and three pages of a letter of Byron's giving his recollections of Mar ame de Stach. George von Bunsen contributes a paper on "What Germany is About," and Matthew Arnold writes a biographical sketch of General Grant. The other contributions—six in number—are agreeable reading. The magazine is attractively gotten up at a shilling the number.—The Critic.

"THE novel is the literary form," says the New Orleans Times-Democrat, "which the nineteenth century may truly claim to have perfected. Yet at the present time even the novel seems to be suffering from the over-scientific spirit. In the struggle after perfection of style, more essential attributes are lost. Our leading novelists seem to forget that the overshadowing purpose of a novel should be the unfolding of the plot, and that the novel was never intended to expound schemes of philosophy and wire-diawn theories concerning the organic structure of the social fabric. Every perfect novel teaches many a moral, as does human life, of which the novel is but the mirror. There are few things more tedious than what the Germans call the Tendez-Novelle. It is better that Philosophy and Fiction should dwell apart. In all the provinces of imaginative literature we stand in dire need of the buoyant naturalness which is characteristic of earlier writers. The longing for this quality is not to be satisfied by the anatomical accuracy and overwrought attention to detail which chiefly marks the most applauded efforts of co..temporary genius."

THAT noble, knightly, though not altogether stainless man, Sir Walter Raleigh, is the subject of a new volume by Mr. Edmund Gosse, of the " English Worthies Series," published by Appleton & Co. This hero of the Elizabethan period had more to do with America than any of the public men of England whose memories are respected on this side of the Ocean. His adventures as an ex; lorer make him a hero of history; his favour at the court of Elizabeth makes him a hero of romance. His vile treatment by King James, his long imprisonment, and his execution on the falsest charges make him a martyr. Mr. Gosse has spaced no pains in collecting the materials for this life of Raleigh, which is minute enough in its details, and yet not so long as to require much time for perusal. The narrative is singularly interesting, showing the weak as well as the strong points of Raleigh's character, and giving views of his qualities as a domestic man, a courtier, a navigator, a man of letters, and a patriot, that make a rare combination. The account of his trial and execution, though composed of well-known materials, is affecting. But more dramatic 's the chapter describing the trial at Winchester for plotting with others to raise King James' cousin, Arabella S.uart to the throne. There was outrageous conduct and talk at this trial, particularly on the part of the Attorney-General, Sir Edward Coke. Mr. Gosse has told of this and all the other events of Raleigh's life in the manner of a conscientious compiler and an expert littérateur. His is ont of the best books of a series that should be possessed by every one that desires to be well acquainted with great Englishmen and the work they have done. - Philadelphia Evening Bulletin.

(Continued from page 935.)

be able to repeat five columns backwards when you are sixteen, and to have forgotten them all when you are twenty-two.

If the principle applies to young people at school, it applies still more to those who, having left school, are reading by themselves or with a teacher. There is no young person, I believe, who could advantageously read through Gibbon's Rome, as a whole, or even through Bancroft's United States. But let the student take some very simple outline of facts, and proceed to throw light on it for himself, and it will soon prove interesting. How dry is Worcester's brief narrative of the settlement of Massachusetts, for instance. But read with it the journals of the colonists, as given in Young's Chronicles of the Pilgrims and Chronicles of Massachusetts, and throw upon these the side-lights obtained through poetry and fiction, through Whittier's Margaret Smith's Journal, Mrs. Child's Hobomock, Longfellow's Miles Standish, Hawthorne's Scarlet Letter, and Motley's Merry Mount. When you have ended, the whole period has become a picture in your mind, and the most thoughtful and serious discussion of it by Bancroft or Palfrey, finds you with a prepared and intelligent mind, if you have the time to give to it. And if period after period could be followed up in the same spirit, history would become for you a study of absorbing interest, and inexhaustible in its themes.

It may be said that some of these books are "light reading." They are light reading in the very best sense, if they throw light on what else would be dark. I do not believe in the theory that only what is disagreeable is healthy, but hold that labour itself is most useful when it is applied with a will, and not against one's will. "What interest is remembered," was one c the favourite maxims of Horace Mann. There is no danger of any one's acquiring any great range of historic knowledge without corresponding toil; but it is possible so to lay the foundations of knowledge, that later toil shall be a delight, and the habit of study its own exceeding great reward .- Pennsylvania School Journal.

HOW TO TEACH "LANGUAGE" TO YOUNG PUPILS.

The teacher should remember that by "language teaching," we mean that training which shail result in a ready and correct use of language. She must also remember that language is used in two ways only: orally and in writing. Remembering also that children learn to talk by talking and to write by writing, she is prepared to take the first step in language teaching intelligently.

about. Tell them a good story and then let them, in turn, tell it to the class. One pupil can tell a little of it, and another may then take it up and carry it on until a third is

ready to assist. In this way half a dozen, and even more, pupils may take part in telling the same story.

Other stories can be added from day to day until a sufficient stock has been accumulated for ordinary use. A list of these stories should be written upon the blackboard.

Daily, or whenever the pupils are weary of any class exercise, let the teacher say, "Now, children, let us tell stories. Whe will tell the story about the 'monkey?'" Ned, and Annie and George tell this story in their own simple language. "Now, who will the story about our dog. Carlo?" Three or four other children take part in this story. And so the story-telling goes on until it is time to resume the usual class exercises.

The children should be encouraged to tell these stories in their own words. Few if any corrections should be made until the story has been fully told. Then the teacher asks if any one has noticed a mistake. Such mistakes as have been noticed will be commented upon by the teacher, but in such a way that the pupils will feel perfectly free to "take a hand" in the story: telling whenever they have a chance. The teacher should remember that most of the mistakes will disappear as the pupil becomes accustomed to talking.

These stories should be told and not read to the pupils, in the first place, by the teacher. Young children are very likely to catch the words of the book, and whenever they do so, the story-telling, as a language lesson, is of little value.

When the children are old enough to write, these stories can be written upon the slates. Thus they may be trained in the use of written language. They should be encouraged to express themselves in writing just as they have expressed themselves when telling the story orally. Moreover, the teacher should neither talk herself nor allow anyone else to talk while this writing is going on. She may walk quietly among the scholars as they write and may take note of such errors as she would like to comment upon before the whole class, but the pupils should have at least ten minutes of uninterrupted time for writing.

The work thus briefly outlined should be carried on for four or five years, the stories being adapted to the ages or capacities of the pupils. If it be true that children learn to talk by talking, and to write by writing, surely we have a right to expect that at the end of five years of such training they will express themselves both readily and correctly in good language.—Practical Teacher.

DICTATION EXERCISES.

adapted to the needs of the pupils. Some bury himself exercises should contain words requiring the use of capital letters, some the use of abbre-

viations, some marks of punctuation, some torms of notes, bills, invitations, letters, etc. Every teacher in the lower grades of the grammar and all grades of the primary schools should prepare a large number of such exercises. If selected at hap-hazard or "on the spur of the moment," the teacher will almost certainly fail of adapting them to the wants of her pupils.

Dictate to the class one of these exercises every day. The pupils will write it upon their slates as the teacher dictates. This being done, the teacher writes it correctly upon the board, and the pupils note and correct their own mistakes. If the teacher prefers, the pupils may exchange slates and each mark the mistakes of his neighbour.

In the lower primary classes these exercises should comprise only one sentence; but in the highest primary, and in all the grades of the grammar school a succession of sentences should be dictated, in order that the pupils may learn to break them at the proper places, and use the proper marks of punctuation. If the teachers in the higher grades find this work too difficult at first, they should confine themselves to exercises containing only two sentences until the pupils can with ease write them correctly.

Notes of invitation, letters, bills, etc., should be dictated in order that pupils may be taught the best forms to be used, but it will not always be necessary to dictate them in full. The opening, including date and address, together with the few closing words and signature, may be all that is necessary, especially with more advanced pupils.

Fifteen minutes should be the extreme limit of time given to one of these exercises, including the examination of the slates. It is better to have a short exercise every day than to have a long one only two or three times a week. Of course teachers must not undertake to examine the slates themselves. Few towns or even cities can afford to hire teachers to examine slates. Better results can be obtained if pupils are required to examine their own work and correct their own mistakes. In this, as in all other school exercises, the teacher must learn to economize her time and her energy. But more will be said upon this subject when we come to speak of letter-writing and composition .-Practical Teacher.

MR. MAX MULLER'S profound dejection, occasioned by the death of his daughter, is causing serious anxiety to the friends whose intimacy gives them a close insight into his exceptionally emotional nature. He has a strange longing to abandon all the pursuits which have hither to engrossed him, and to bury himself in obscurity in that dreariest of all German towns, Dessau, which is his native place.

Educational Intelligence.

COUNTY OF HALDIMAND TEACH-ERS CONVENTION.

THE teachers of the County of Haldimand met in convention in the Public School, Dunnville, on Thursday and Friday last, the 3rd and 4th.

The President, Mr. Cheswright, addressed the teachers on the importance of institutes, and showed how they might be rendered more efficient. He briefly referred to the good work done by the Haldimand Institute, and concluded a very practical address by urging on all present the importance of joining in the discussions.

Miss Jennie Taylor taught a model reading lesson to a second class.

Mr. J. J. Tilley, Model School Inspector, read a paper on discipline, based on Chapter IV. of "Fitch's Lectures on Teaching." He discussed: first, the importance of discipline; second, the characteristics of good discipline; third, the means of securing good discipline. Mr. Tilley's paper was discussed by Messrs. Harrison, Kennedy, Blackman, Kinnear, Hindson, Bicknell, Rowat and Miss Moir.

Miss Chambers next took up map-drawing. By request Mr. Gourlay showed how a class might be taught to draw a map of South America.

On Thursday evening lectures were delivered in the Opera House to a large audience, by Mr. Tilley and Dr. Montague.

On Friday morning Mr. Gourlay, B.A., Modern Languages Master, Caledonia High School, took up the subject of algebra.

The teaching of fractions to a class of beginners was illustrated by Mr. Tilley, who showed the advantages of object teaching. At the conclusion of this lesson a discussion took place, in which Messrs. McCarthy, Hindson, Kennedy, Kinnear, Harrison and Miss Lambier took part.

The committee appointed on the "Ryerson Memorial Fund" reported as follows:-

We, the committee appointed to look after the raising of lunds for the Ryerson Memorial Fund, beg leave to report as follows:—

"While we, as teachers, recognize our obligations to the late and esteemed Dr. Ryerson, we also think the country generally is equall indebted to his labours, and therefore as a public benefactor, it is only just that the amount of the deficit should be supplied from the funds of the Provincial Treasury, especially as the teachers have already done their part."

The report of the committee was adopted without dissent.

Mr. Hindson, Principal of Danville Public School, next took up the subject of "Morality in Public Schools" under the tollowing heads: 1. What is morality? 2. Value of morality; 3. The teaching of morality. Mr. Hindson's remarks received the unanimous endorsation of the convention.

The Ontario College of Preceptors was discussed by L. Kinnear, B.A., Assistant Master Dunnville High School. The subject brought forth an animated and somewhat protracted discussion. Finally a resolution, favouring the establishment of a College of Preceptors, was adopted.

Mr. Tilley next discussed "The Relation of the Teacher to His Work," under the following heads:—The relation of the teacher, 1st, to the trustees; 2nd, to the people; 3rd, to his pupils.

On motion of Mr. Moses, seconded by Rev. Percy Smith, a hearty vote of thanks was tendered Mr. Tilley for his valuable assistance during the different sessions of the convention.

EAST GREY TEACHERS INSTI-TUTE.

THE East Grey Teachers' institute met in the music hall, Thornbury, Feb. 3rd.

In the afternoon Dr McLellan was introduced, and took up the "Study of English Literature in Schools." The speaker contended that the culture of the heart was of lar greater importance than the mere training of the intellect; and that heart culture could be attained by the proper study of good English literature. He considered that libraries in the school would be a very great benefit.

Mr. Merchant, of Owen Sound, laid down a few principles on elementary drawing.

The second day's proceedings began at 9 o'clock on Friday forenoon.

The first subject introduced on Friday was "Corporal Punishment." A number of the teachers took part in the discussion.

Mr. Merchant addressed the association on the proposed "College of Preceptors for Ontario."

Dr. McLellan then took up the "Art of Questioning." The speaker was only able to discuss one feature of it, viz.:—Its objects. By means of questions the Dr. called torth from the teachers present the different objects which the questioner should have in view. 1st. To discover the pupil's knowledge; 2nd. To arouse his attention; 3rd. To fix the knowledge he already has; 4th. To extend his knowledge; 5th. To test the pupil; 6th. to excite the interest of the dull pupils.

In the afternoon a communication was read from the Women's Christian Temperance Union, of Thornbury, asking the association to use its influence to secure the use of a text-book on temperance in the public schools. The communication was favourably received, but the association had already taken the required action in the matter.

Mr. Lindsay being called upon gave a dergarien system.

paper on the proceedings of the Provincial Association.

Mr. Whyte gave his method of teaching geometry.

A vote of thanks was extended to Dr. McLellan for his services.

The public entertainment on Thursday evening was a success, a very large audience greeting Dr. McLellan, who delivered his celebrated lecture, "This C mada of Ours."

MANITOBA.

THE regular quarterly meeting of the Protestant section of the Board of Education was held Wednesday. Feb. 2nd, in the education offices.

The appeal of the petitioners for the Isbester school district against the refusal of the council of Springfield to comply with the request for the establishment of the school was considered, and it was resolved that, in view of the fact that the purposed district does afford school accommodation to all the parties interested in the district to be served, the action of the council be allowed to stand.

A by-law of the council of Turtle Mountain establishing Ferns Hollow School District, and another from the council of Glenwood torming Botany School District were confirmed; and the formation of Bethel, Alcester and Dumfries were also confirmed conditionally upon certain supplementary information being found satisfactory.

The formation of Bruce School District, in the municipality of Elton, was not agreed to. The superintendent was authorized to cooperate with the council in some systematic arrangement of school districts for the municipality.

 A resolution was agreed to asking authority for an increase of expenditure for the Normal School, and the superintendent was authorized to make necessary modifications in the relation of the school to the Winnipeg school, and to report.

Memoranda suggested by a committee of the general board of education, in regard to legislation, were read, and copies ordered to be supplied the members.

A statement of the explanations given by school districts which were in default in their cersus returns last November, was considered and the superintendent authorized to remit the penalty in those cases in which the explanation was satisfactory.

LINDSAY ROARD OF EDUCATION.

At the last meeting of this board communications were read as follows:—

From Miss J. Holtori, tendering her resignation as teacher in the east ward school.

From Miss M. Peplow—now in Toronto asking the board, should an opening present itself at Lindsay, to have the opportunity of tendering her services as teacher of the Kindergarten system.

From Mr. Principal Harstone, reporting on the number and value of books in the high school library, and of maps, globes and other furnishings. Reference was made to the Government regulations as determining grants made to high schools on equipment in the points noted above, and suggesting that the board should increase the library, maps and scientific apparatus-now below the requirements as regards number-and thereby gain the maximum grant attainable. At a later stage of the meeting it was decided by resolution that the minimum amount of \$100 be granted and placed under control of the managing committee for the purchase of books, maps, etc., in order to bring the equipment up to the desired state of excellence.

Reference was made to school accommodation, which was noted as still insufficient. Comment was made on the seating capacity of the schools.

On motion of Col. Deacon the chairmen of the several standing committees were appointed as an executive committee to cooperate with the chairman on matters relating to education, with power to deal with engagements of teachers, but to report to the board in the same manner as other committees. The resolution was carried.

STRATFORD SCHOOL BOARD.

At the last meeting of this board Mr. Chadwick announced that he wished his agreement to end at forty days from date. The board decided to accept the resignation.

The managing committee reported that permission had been granted to Mr. Free-land, teacher of singing, to give a demonstration of the Tonic-sol-sa system of teaching music.

Mr. Alexander, inspector, said that he was in receipt of a communication from Mr. Dearness, inspector of Middlesex, who, from his experience of Mr. Freeland's work in his inspectorate, recommended its adoption here. The board decided to give it a four mouths' trial, and with that object agreed to appropriate a sum not more than \$120, to be expended in that way. Messrs. Sharman, Read and Barnsdale were appointed a committee to make arrangements with Mr. Freeland for a course of lessons in some of the rooms.

It was decided that Mr. Chadwick's pupils be put into Miss Walker's room in the meantime, and that the board advertise for a principal to take charge of the model school, at a salary of \$900, applications to be received up till second Tuesday in April, and dutes to begin at the beginning of the fall term. The managing committee were empowered to wait on Miss Walker, and offer her the sum of \$125 as remuneration for extra services during the long term.

The secretary was instructed to pay Mr. Chadwick two months' salary, at the rate of \$850 at once, and relieve him, as he is sick, and likely to be confined to the house for a week or more.

FERGUS BOARD OF EDUCATION.

AT the last meeting of this board the chairman on behalf of the committee appointed to confer with the Elora School Board regarding non-resident pupils, reported that as the law stands where the taxes paid by the parents of such children are less than the average taxes paid by the whole ratepayers of the municipality the board can make a charge of fifty cents per month for each non-resident pupil.

The committee appointed to engage a monitor reported that they had secured Miss Maggie Samson till the summer holidays at the rate of \$100 per year. Miss Samson is assisting in Miss Slater's room, and since they are becoming accustomed to the arrangement they are getting along better than they did in the first place.

Mr. Craig thought the board had been very precipitate in their action in this matter. Although he had never heard the idea of engaging a monitor hinted at, at the board or elsewhere, at the last meeting of the year, when a bare quorum of the members were present, it had been decided to engage a monitor. He thought it would be more satisfactory, in dealing with a matter that would ultimately most likely involve an outlay of about \$400 a year, if, instead of pushing it hurriedly through at any one meeting, an intimation was given that at the next meeting a motion would be made bearing upon the subject. That would enable absent members to be present and hear what was to be said in behalf of the action proposed to be taken, and it would also afford the. an opportunity of raising such objections as in their judgment the whole circumstances warranted.

DUNDAS BOARD OF EDUCATION.

At the last meeting of this board a letter was read from the secretary of the Mechanics' Institute, asking for the loan of geological specimens in the high school.

On motion the request was granted provided that the institute guarantee the proper care and safe return of the specimens.

The overcrowded condition of the high school was discussed, and a motion carried, authorizing the property committee to furnish the required seating accommodation at once.

Applications for the position of assistant headmaster of the high school were then read from Messrs. J. P. Hatton, H. R. Lidley and W. Dewar. None of these applicants possessing the proper qualifications it was moved by Mr. Thomas, seconded by

Mr. Connell, and resolved, that Mr. Marshall be retained, and that the Secretary write the Educational Department that the board having advertised for a teacher and having had no qualified applicants for the position, have kept Mr. Marshall.

CHATHAM SCHOOL BOARD.

At the first regular meeting of this board a petition was read by the secretary handed in by Mr. Murray and signed by some fifty persons, applying to the board requesting that coloured children be admitted to the Forest Street School and other schools in their several wards.

It was moved by Mr. Cooper, seconded by Mr. Reed, that the petition just read be received.—Carried.

It was moved by Dr. Radley, seconded by Mr. Murray, that the petition as read be left to a committee to report. Carried.

The committee on sites reported in favour of purchasing lots 19 and 20-200×200-situated fifty feet from the corner of Queen street and Larwell avenue, having a frontage of 200 feet on said avenue, and ruuning southerly 200 feet along a street 80 feet wide, which is shown in the map.

The report was adopted and it was left to the representatives of Ward No. 2 to enquire into the probable cost, kind of school house, etc., etc.

NIAGARA FALLS SCHOOL BOARD.

AT a meeting held last month an application was received from Miss M. A. Henderson for increase of salary; a notice from the head master regarding introduction of fifth book in the school.

Moved by Mr. Groom and seconded by Mr. Carnochan, that Mr. Harcourt be appointed inspector at a salary of \$50 per annum, and that the clerk notify Mr. Harcourt of his appointment. Carried.

Moved by Mr. Gray, seconded by Mr. McKenzie, that the usual prize of \$4.00 worth of books be presented to the pupils passing the High School entrance examination. Carried.

At a special meeting held on Feb. 5th it was moved by Mr. Mackenzie and seconded by Mr. Groom, that the secretary notify Rev. Mr. Gordon that the board will not require his services as inspector for the coming year. Carried.

MISS A. PATTERSON, Desmond, has given up teaching, temporarily.

MISS MAGGIE DOWLER, Alnwick, has been appointed assistant school teacher at Roseneath.

An appropriation of \$9000 has been made by Mount Forest to erect a new high school building in that town.

MR. ARGUS McNEILL, teacher of S.S. No 2, Saugeen, goes to Woodstock this term to attend the Baptist College. Mr. BADGLEY a few weeks ago entered upon his duties at Duluth as principal in one of the high schools of that city.

THE Uxbridge Board of Education is making preparation for the erection of a new high school building next summer. The first set of plans do not suit, they are negotiating for new ones.

THE trustees of the Cottam School Section, since its division, purpose selling the old brick school house by public auction and building two new ones, which will add considerably to the taxes.

MR. GEO. DEACON has been appointed principal of S.S. No. 25, York Township, at a salary of \$500 per annum. The other teachers are Miss Cooper and Miss Bell, at salaries of \$300 and \$350 respectively.

THE Union school-house, near Robbins Mills, Ameliasburgh, was twice set on fire on the 10th ult. during a public meeting by the upsetting of the chandeliers. A panic ensued, but the fire was extinguished before serious damage was done.

MISS KATE MILLER, of Pembroke, a pupil of the High School there, who passed the third class examination last summer, and was a pupil of the Renfrew Model School last term, has accepted the position of teacher of School No 3, March, near Ottawa city.

THE Petrolea High School was closed one afternoon last week on account of water flooding the basement and putting out the fire in the furnace. Mr. Bell, of the school, has been confined to the house for a few days, and has been unable to take charge of his department.

THE concert given by the Highgate School for the purpose of getting a bell was a decided success. A long programme, consisting of readings, recitations, dialogues, and music, was given, presided over by the teacher, Mr. A. Samson. The proceeds amounted to something over \$30.

MESSES. MACKENZIE, Rice and Pattullo, the Public School Management Committee, Woodstock, for the year, are making a tour of inspection through the schools. Miss Milne was engaged to teach in room number 12, East End. Miss Milne formerly taught in Perth and Lambton counties.

THE annual meeting of the United Board of School Trustees for the Williamstown High and Public Schools was held recently. G. H. McGillivray, Esq., was unanimously elected chairman: John A. McDonald, sec.-treas., and D. J. McDonald, auditor. After some desultory business the meeting adjourned tine die.

THE annual convention of the high and public school teachers of East Victoria opened at the High School, Lindsay, on the 10th ult. A very large programme of matters interesting to the profession was provided and discussed. In the evening, at the Opera House, Mr. James A. McLellan delivered an able address. Subject, "Critics (Educational) Criticized."

Miss Freeman, the lady principal of the Woodstock College, before taking her departure for her home in Nova Scotia, was the other day presented by the ladies of the college with an allum. The inscription on the outside cover of the book was as follows:—"To Miss Freeman, from her g rls of '86-7." The gentleman students gave her a

folio edition of "Evangeline," bound in alligator. The Faculty gave her a large, richly illustrated volume of "The Heroines of the Poets." These presentations were all made at different times and were entirely informal.

A MEETING of the Huntsvide School Board was held recently to decide on what kind of a school building should be erected this summer. After a good deal of discussion a resolution was carried to build a brick building to cost between two and three thousand dollars, and put up in such a way that an addition can be added when circumstances require it. The architect, Mr. Cuffs, of Lindsay, is to prepare the plans, and it is hoped that everything can be got ready this winter, so that the contract can be let and work commenced on the building as soon as weather will permit.

A MEETING of the Dundalk School Board was held in the school-house on the 7th ult. It was moved by R. Cornett, seconded by H. Pate, that the secretary is hereby instructed to get a list of scholars who have not attended any school the legal number of days during the past year, and to notify the parents or guardians of such children that unless they comply with the school regulations at once, the law will be enforced without fear, favour or affection.—Carried. The trustees were favourably impressed with the management of each department, but were disappointed with the average attendance.

Ar the regular meeting of the Wingham School Board held on the 5th ult., a communication was read from Miss Catley, teacher in the third department of the school, who has been laid up ill at her home in Mount Forest for some time. Miss Catley stated that if the Board did not desire to retain Miss Snell to teach in her place until she recovered, she would send her brother, who holds a Second A and has been teaching for four years. to fill the position. Considerable discussion ensued over this communication, when it was finally resolved to retain the services of Miss Snell for another month, at the end of which time, if Miss Catley is not sufficiently well to resume her duties, the secretary is to notify her that the Board would accept of her resignation.

THE Toronto Board of Education have appointed four new teachers-Misses C. Davis, M. Coleman, J. Hislop and L. Chisholm. A recommendation to remodel the Central School was referred back to the Internal Management Committee for further consideration. The Board's finances are in a had way, and on the first of last month the account was over \$27,000 on the wrong side. The number of children on the rolls is 7,246, and it was stated that at least 1,000 were without proper accommodation. Many are taught in sheds with leaky roofs and whose walls have neither lath nor plaster. The Central School, the largest in the city, is almost unfit for use without being almost altogether rebuilt. At present the Board has not money to make the necessary alterations, and it was suggested that the City Council should be asked for a special assessment of six mills, which would give the Board \$120,000 The Internal Management Committee will try to devise some means to get over the financial diffi-

Examination Papers.

COUNTY CARLETON

PROMOTION EXAMINATIONS.

DECEMBER, 1886.

ENTRANCE TO FOURTH CLASS.

ARITHMETIC.

- 1. WRITE in words the following numbers: 30040, 1003756, 943762.
- 2. Find the value of 16 sacks of corn, each weighing 133 lbs. at 48 cents a bushel. (A bushel 56 lbs.)
- 3. A ship sails for 6 weeks, 3 days, and 5 hours at the rate of 13 miles an hour; how far has she gone?
 - 4. Reduce 15840 feet to miles.
- 5. Three men are employed to cut wood at 60 cents a cord; how long will it take them to earn \$90, if each man cuts two cords a day?
- 6. Find the H.C.F. and L.C.M. of \$4, 168, and 436.
- 7. What change should be returned from a \$10 bill given in payment of 1834 yards of cloth at 40 cents a yard?
- S. Find the amount of the following bill: 12½ yards at 18 cents a yard; S yards at 27½ cents a yard; 6½ yards at 28 cents a yard; and 27 yards at 33½ cents a yard.
- 9. A harrel containing 360 apples is bought for \$3.25. If the apples are retailed out at the rate of 3 apples for 5 cents, how much is gained by the transaction?
- 10. Multiply 300040 by 20060, and test the accuracy of the work by dividing the product by the multiplier.

GEOGRAPHY.

- 1. Define, Isthmus, Cape, Volcano, Bay, Lake, Channel.
- 2. What two Hemispheres have you studied? Name the grand divisions of land in each.
- 3. Where are the following islands: Vancouver, Cuba, Prince Edward, Manitoulin, Calumet?
- 4. Where are the following lakes: St. Clair, Nipissing, Muskoka, Ontatio, Rainy?
- 5. Into what do the following rivers flow: St. Lawrence, Mississippi, Ottawa, Rideau, Maitland?
- 6. What counties of Ontario border on the Ottawa river? Name their county towns.
- 7. What counties border on the St. Lawrence Name their county towns,
- S. Name the provinces of the Dominion of Canada, and give their capitals.
- 9. Where are: the Rocky Mountains, the Alleghany Mountains, the Gulf of Mexico, the Isthmus of Darian, the Bermuda Islands?
- 10. What pursuits do the people of Ontario generally follow?

GRAMMAR.

- " When Night with wings of starry gloom O'ershadows all the earth and skies, Like some dark beauteous bird, whose piume Is sparkling with unnumbered eyes-That sacred gloom, those fires divine, So grand, so countless, Lord! are thine."
- 1. How do you know the noun from the other parts of speech? How do you know its number and gender?
- 2. Write out the nouns in the above stanza, giving their number and gender.
- 3. How do you know the verb from the other parts of speech? How do you know whether it is transitive or intransitive?
- 4. Write out the verbs in the foregoing stanza, distinguishing between transitive and intransitive.
- 5. What is an adjective; an adverb: a pronoun?
- 6. Write out in separate columns the adjectives, adverbs, and pronouns in the above stanza.

- 7. State in what case each of the following words is used in the above, giving reasons for your answer: Night, wings, earth, whose thine.
- 8. Attach a predicate to each of the following subjects:

The thermometer-

A cloudy morning-

The Leasts that roam over the plain-

9. Attach an enlarged subject to each of the following predicates:

-sends forth flame, smoke and ashes;

is called an isthmus :

-reads with expression;

-have entered the farm yard. 10. Divide into subject and predicate:

The old man's story amused me very much.

In what province of the Dominion do you reside?

The largest boy in the room was punished.

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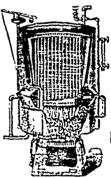
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