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THE

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Articles: Original and Selected.

TEACHING PENMANSHIP.

Geo. F. De Long, Three Rivers.

In casting about for material, and in reflecting upon the subject of penmanship, I became impressed not only with the importance of the subject, but with my inability to do it justice. In observing the work done in the schoolroom and in the business college, in noting the opinions of teachers upon the same, and comparing both with my own experience, both in the schoolroom and the business college, I had for some time come to the conclusion that he who indites an article upon penmanship draws upon himself the fires of criticism from two opposite sides of opinion as to the best method of teaching penmanship; and I could well wish that the task had devolved upon some one more competent to deal with it. But it is the duty of the soldier to obey, and inasmuch as I have been selected to present this subject to you, I do so, not to display any superior talent or wisdom, but as a duty; and, while expecting your criticism, I also invite your sober judgment, in the hope that the discussion of the subject will present some practical suggestions that will result in more satisfactory work in the schoolroom.

There are, as stated, two opposite opinions as to the best method of teaching penmanship in our institutions of learning.

The one makes analysis of letters the foundation of the art; the other makes movement the foundation. The first seems to have for its motto, "Legibility first and rapidity afterwards," and the second, "Rapidity first and legibility afterwards." The first is the natural outgrowth of the institutions of our fathers and mothers, who, as they tell us, when they attended the primitive schools of earlier days, were fortunate if they had a tolerably accurate copy, written by the master, placed before them, which they tried to imitate more or less closely with a quill pen. Not much attention was paid to analysis in those days, and most of our fathers and mothers could not tell whether they employed the third or the thirty-third principle in the formation of the small "i." But the march of the schoolmaster has been onward ever since he first came into the land; log schoolhouses and slab-seat benches gave way to more commodious edifices supplied with seats furnished with backs, and, wonderful improvement, desks! Written copies were superseded by printed ones, and pupils were taught analysis of letters. Still onward, and the tedious and laborious characters were found to be altogether too slow for the Nancy Hanks pace of the modern business world, and there came a demand for more rapid execution. Business colleges sprang into existence which made the art of penmanship a special study, and the idea of movement was gradually developed until to-day we have swung to the other extreme of the pendulum, and on all sides is heard the demand for movement, in imitation of the methods of the business college, until even our primary schools have caught the infection. There is really little difference of opinion as to the utility of making movement the foundation of penmanship with the students of a business college or with the advanced pupils in our public schools; but the real question which still invites discussion is, is it, after all, just the thing for primary pupils? In the main, both methods have produced such wholesome results that he who would condemn the one or the other must subject himself to the suspicion that he is ignorant of the real merits of either. There is something, there is much, in a method, but it is not everything. A great deal depends upon the conditions under which a method or a system operates, and the manner in which it is applied. If you will pardon the digression, I might illustrate it with reference to the tariff question which has agitated the minds of all classes of our people for some time. Here are presented the two wholly opposite economic theories of free trade and protection, and, as a general thing, it is safe to say that the most enthusiastic

advocates of either can imagine little, if any, good in the other. In the heat of argument men have been too apt to overlook the fact that the existing conditions in a country have much, if not everything to do with the fact whether free trade or protection, or whether "reciprocity," which some would call "free trade in spots," best promotes the general welfare of a country. Theory is thus generally a nice thing to talk, but it is sometimes a very hard thing to live under.

So, in my opinion, is a great deal that is said and written about penmanship, it would seem to indicate with many a greater knowledge of theory than of actual practice. Then, too, there are the enthusiasts, the hobbyists, who will make a success under the most trying circumstances, and because they have succeeded, imagine their methods to be the only ones that can succeed under any circumstances. And yet we must admit that conditions have a great deal to do in determining which method would prove the better success, even in penmanship. Much depends, also, upon what we would call "success;" and the question is, are there not some specially different conditions that characterize our primary schools and distinguish them from the business college as well as from the advanced grades in our public schools?

In the first place it is the province of the public school to give the pupil elementary instruction, thorough, it is true—in a number of branches—such as will give him a general education and fit him for the general duties of citizenship. In the abstract it is not the province of our public schools to turn out professional men and women. To do this would require special preparation, special advantages, and special instructors in every department of learning. On the other hand, it is not the province of a business college to give the student a general education, but a particular,—a professional—education; consequently it excels along this line. The first has in contemplation the child; the second, the young man or woman. The first deals with pupils in different grades of advancement; the second supposes but one. The first would develop skill and judgment; the second presupposes a certain quantity of both already existing with the pupil. The first devotes less than half an hour daily to the practice of penmanship, and by teachers themselves in all grades of efficiency as instructors; the other devotes upwards of one hour daily to the same under the careful direction and training of a specialist, an expert. A young man or young woman will enter upon a course at a business college with the mind as well as the hand directed to

the attainment of good penmanship to fit him for that particular pursuit in life. The student will thus practise not only more carefully but much more extensively. Owing to the associate nature of his studies it is not unusual for him to write upwards of one-half of the entire time. If, under all these favorable conditions, a business college turns out a tolerably good penman within six months, is that a conclusive argument that its methods are the best for primary pupils? Again, practice must be combined with judgment. Is there not a great difference, both mentally and physically, between the child of six or seven years, and that of the young man or woman as well as the more advanced pupil?

But neither analysis alone, nor movement alone, will produce a penman. Whichever be made the foundation must be supplemented by the other. It would, at least, be a slash at the gordian knot to say that they should go hand in hand. But with primary pupils I would lay great stress upon form: I would preach analysis, and in the writing exercise I would try to practise what I preach. The analysis of letters having been thoroughly acquired until the pupil has the ideal form of the letter in his mind, he will be much more liable to conform to that ideal in practice, whatever movement he may acquire. Whatever may be said for or against this method, it has one thing in its favor,—it is the natural order of development—form first, movement afterwards. By careful attention to this method even primary pupils have produced work that was nearly as perfect as the printed copy, and any method that will produce such results is not to be at all despised. No one would seriously hesitate to call it a success.

But now comes the tug of war. Some one interposes again the same old question: "Is it not harder for the pupil to unlearn a bad habit than to learn the right habit from the start?" This is one of those stock arguments in favor of teaching movement as the foundation in all grades, which probably finds ready acceptance on the ground that, as an abstract proposition, it cannot be successfully disputed. I am not, however, ready to admit the proposition as suggested in the question. It is a very nice theory, I admit; but a moment's reflection suggests the question, why did not our parents, when we were five or six years of age, teach us the habits, actions, and manners of grown-up people? Many things adapted to our physical and mental capacities as children are just as unfitted for us now as would be the dolls and the hobby-horses to the sage and the matron of sixty. We have had to unlearn

so many things! Art will improve even a child; but it cannot make a man of him; nature will do that in the same old way. Whatever advantages the movement method may possess over advanced pupils, when we compare it with the analytical method for primary pupils, it may be said to be rather a choice between two evils, of which I would choose what to me seems the least. I would aim to deal with conditions as they are, and not as they might be, or as some would urge, as they should be. With this in view I would not lose sight of the fact that primary pupils have a certain amount of written work to perform in which it is admitted by many that the pupil is not expected to depend upon the movement practised in the general writing exercise. If this be the case, it is an actual confession that it is one thing to theorize and quite another to put into successful practice. We may admire the man, but we have not the profoundest respect for the opinion of the economist who contends that his theory is the only logical and correct one, but who also holds that its enactment is "impossible."

But I would not wish to be misunderstood. I would not neglect movement with a primary pupil any more than I would neglect form, or analysis, with the more advanced pupil. The idea of movement should be gradually developed according to the ability and the comprehension of the pupil, and he should be encouraged to depend upon it more and more in his general work until he will have learned to depend upon it altogether, which he may be able to do after reaching about the fourth grade. Above those grades the pupil may be taught, or rather, should be taught, wholly by the movement method, and he should be expected to depend upon it altogether in all his work. Care must be taken, however, in all stages, never to sacrifice legibility to rapidity. Most of us, doubtless, have in mind at least one particular individual, a glance at whose chirography is evidence enough that he has got rapidity down to a fine thing. Plainly enough, letter writing is a great saving of time with him, but it is no saving of time to the man who has to read it; he is the one who does the swearing, and it is not at all pacifying to his state of mind to know that the writer could write twenty such letters in an hour. The first consideration in letter writing should be, not the convenience of him who writes it, but of him who is to read it.

Briefly, then, the distinguishing features of the two methods are, that the analytical method aims at accuracy first and a gradual development of speed afterwards; while whatever is done by the movement method is done rapidly, accuracy being

almost completely sacrificed at first until the pupil will have gained sufficient control of himself and of the pen. From the fact that the analytical process is not only the easier for little people, but also productive of better work, is why I would recommend it for primary pupils. A thorough knowledge of form being thus acquired by the pupil, the attainment of movement becomes a mere matter of practice; while, on the other hand, no amount of movement, without a thorough knowledge of analysis will ever produce a fine penman. The analytical method is primarily an exercise of judgment, and is enduring; while the other is primarily a training of nerves and muscles and requires continued practice to make it available, otherwise there is great danger that it will degenerate into a scrawl. This last is the particular caution to be heeded in teaching the movement method. It is a much more delicate and artistic accomplishment, and for that reason more liable to be abused. The movement method must always be used with judgment; for it must be borne in mind that *motion* is not "movement." Correct movement will result in correct form, while mere motion produces carelessness and consequent bad habits. In their application, then, the whole matter may be summed up in that with maturer minds the movement method will produce best results, while with children it is more liable to result in mere motion.

The movement method also requires greater tact on the part of the instructor. Beginning with simplest movements every movement exercise should have steadily in anticipation a definite step in the development of form. The error must not be committed of making the movement exercises the object aimed at. They should not be considered in themselves of any value whatever; they are only the means to an end. The time of a writing exercise should not, therefore, be confined wholly to the movement exercise; but sufficient attention must be given to practical work. Simple combinations should be followed by the more difficult ones, and all require to be gone over and over again. Neither should too much prominence be given to the capital letters. The writing of many students will be found to be sadly deficient in the formation of the small letters. This is due to the fact that there is a certain fascination, especially to the beginner, in a bold movement which is lacking in the case of the small letters; and, also, a mistaken judgment as to good penmanship is by many based upon the skill shown in forming the capital letters. As a matter of fact, however, the capitals are the easier of the two,

for the reason that their forms are more sweeping and continuous, and their combinations not so varied and abrupt as in the small letters.

The teacher who would produce the best results in penmanship must himself be able to do good blackboard work. To see a letter constructed is worth a cyclopedia of instruction upon the same, and is one of the most valuable object lessons. To do this effectively requires some preparation and practice on the part of the teacher, but he should not think of teaching penmanship without it. He may thus throughout an entire writing exercise produce the different movement exercises upon the blackboard. A good plan, also, is to send sections of the school to the blackboard while the rest practise the same exercises with pen and paper, thus serving both as a divertisement and as a valuable aid to the pupil in blackboard work as well as desk work. Count while you write; this is to secure control of the pen, not only to make it go where you wish it, but, what is equally important, when you wish it. Counting produces both regularity and uniformity, and is to penmanship what the governor is to the steam engine.

Finally, as to producing an expert penman within three months, do not be discouraged if you do not succeed. Remarkable progress is, of course, often made along any line, and a great deal, as stated before, depends upon conditions which are not cited in connection with the phenomenal genius whose portrait is displayed as an advertisement in some penman's journal. Practice will often produce wonderful results, even in three months, but in the main it is not to be expected to produce a penman any more than we would expect to produce a musician or an artisan within that time; yet fine penmanship is perhaps as great an accomplishment as either of them.

Editorial Notes and Comments.

We notice that the Rev. Dr. Scrimger in his report on schools to the Presbyterian Synod has a word to say against the school system of Quebec, giving emphasis to a statement made by one of our inspectors, that a large proportion of our teachers have no professional skill. It may or may not be justifiable to discuss in such a report the defects of our system as a whole. But it would certainly be nearer to justice to discriminate between what is good and what is bad in our system, in order that it may not be considered all bad. This, Dr. Scrimger has not

ventured to do, possibly from lack of information, or just as likely from some reason of his own, which he does not care to divulge further than to say that the representation on the Protestant Committee of the Council of Public Instruction is far from being equitably proportioned. Is it not strange that Dr. Scrimger should discuss the sectional at one time and the general at another, evidently for no other purpose than to animadvert against our system ?

—In the inspector's statement, which he cites with some unction, our authorities have no new lesson brought before them. The unskilled teacher should have no place in our system, and all the rules and regulations in the world will not make of our schools anything more than they are until some plan is adopted to supply our elementary schools with trained teachers. Building from the top is never likely to be other than a ridiculous suggestion, and any attempt to do so in a plan for the improving of the human race is likely to be as ludicrous in practice as it is ridiculous in theory. Dr. Scrimger, therefore, has made a point when he repeats what has been the experience of one of our inspectors. For his information, however, we may state that something is being done in the province of Quebec to give our young teachers some idea of the process of conducting a school, in our Normal School and at our Teachers' Institutes. Yet the means for filling our elementary schools with trained teachers is confessed to be altogether inadequate, and it remains for the authorities to take action in organizing some additions to our system which shall provide a remedy for what Dr. Scrimger says ought not to exist.

—The *Witness*, in discussing the question of teaching "temperance hygiene in public schools," says, that the educational system of New Brunswick is far ahead of that of Quebec in this respect, and even of the excellent school system of Montreal, where the teaching of the subjects so definitely prescribed in the New Brunswick schools is, comparatively speaking, very partial. Surely the *Witness* writer is not so benighted as not to know that what New Brunswick has just introduced has been in operation for years in our Protestant Schools of Quebec, and that not only is temperance hygiene being taught in these schools, but that every pupil after having been presented in what is called Grade I. Model School is subjected to a written examination every year until the course is completed by the University School examinations. Is it not a pity that we have so little faith in ourselves, as to be ever comparing our own

affairs with those of others, with the facts in our own favour left out.

—A good and true first principle came from the lips of Sir William Dawson, at the late Convocation of McGill University, when he said:

"I believe that the object of the university in its educational work in all its faculties should be one and indivisible. It is not the purpose of the university to educate in its faculty of arts mere pedants or dilettanti, but to train men and women for the best exercise of their powers in active life. It is not the object of the University to produce mere lawyers or mere engineers. Our graduates in arts should be better fitted by the education they have received to prosecute any profession or business, and that they are so is proved by the high places they have invariably taken in the professional examinations. Our graduates in law, medicine or applied science have, on the other hand, proved themselves well qualified to act their parts in the general social, political, scientific, literary and religious movements of society, as well as to occupy high places in professional life. In our view every graduate should first take his degree in arts and afterward enter a professional faculty. This double degree is a worthy object of ambition on the part of every student. Circumstances may prevent many from attaining to it; but in any case the graduate in arts should at once enter on professional study or some practically useful business or pursuit in which his education may bear good fruit. Every professional graduate, on the other hand, whom dire necessity has prevented from taking his course in arts, should endeavor to make up for this as far as opportunity offers by continuing to cultivate and extend his general education. The university knows the vast variety of the human interests and relations with which the legal practitioner has to do, and that engineering has reference to everything in the heavens above, the earth beneath and the waters under the earth. Men in either of these professions may be called upon to deal with intricate and important problems not anticipated at the outset of their career, and to discharge important public duties not of a professional character. Who can be sufficient for such things without the best training of all his powers. How great, on the other hand, is the responsibility of those who have had such training. This responsibility devolves on you and it reaches from you not only to your university, but to your country, to mankind and to God. May you go forth into the world in this spirit, and may God grant you grace and power and length of

days, and all fitting opportunity to discharge well and fully your obligations in all these respects, so will you have abundant reason to be grateful for the advantages you have obtained; and your country and the world will be the better for you and the education you have received."

—In referring to the purchase of books for the Redpath Library, Dr. Johnson, in his address, referred to a matter which ought to be discussed by every community in the land in their efforts to have a good library in their midst. "Thanks to the more enlightened policy of the Government," said the Dean of the Faculty of Arts, "we have through the recent change in the tariff, a better chance of filling the empty shelves. At any rate, the tax on knowledge has been lessened; the height of the barrier against the importation of new ideas or the spread of old ones, has been greatly reduced. Great praise is due to the Government for their action. But, as a people, we have no reason to be too proud of the advance. We have not yet reached the stage at which France and Italy and other countries arrived four centuries ago, when there was not only no tax on books, but the universities had authority to fix the prices."

—An excellent word of advice is to be found in the following, which has been taken from the *School Journal*:—"The best of teachers is in danger of neglecting the essentials and spending too much time over the details of his work. To avoid this a skeleton of the work should be constantly kept in mind. Occasionally a lesson may be deepened, and the hold on the general subject broadened by utilizing an unexpected interest on the part of the pupils in some particular phase or question. But this advantage should be promptly applied through its connection with the whole. A scheme of the whole, kept always in clear mental view, will furnish this connection and enable the teacher to cement his work. Thus the branch that has bent to the breeze returns to its normal relation to the tree, and the whole is strengthened and made alive. The weak teacher follows the impulsive interest of his pupils from issue to issue, loses direction, cultivates mind-wandering, and fails to teach the subject he has set out to teach. The formal teacher rivets the mind of the student closely upon detail after detail, teaching these separately and getting no wholeness. Keep your ultimate aim so well in view that the little aim of each passing moment shall not gain an exaggerated importance."

Current Events.

Dr. Johnson, in referring to liberal endowment of a Professors' Pension Fund for McGill University by Sir Donald Smith and Messrs. Macdonald and Molson, pointed out the warrant for such action in the provisions made elsewhere for the retirement of gentlemen who have spent their lives in college work. "In the universities of the mother country, as well as of this, it has been the general rule that when a professor, after a certain number of years' service, became incapacitated by illness or age, a junior assistant was appointed to discharge his duties, receiving as remuneration a small part of the professor's salary. Even the rich university of Oxford provides in the statutes for this arrangement for some of its chairs. It was the common practice in the Scotch universities for two or three centuries. But, as might be expected, the results were unsatisfactory, and about forty years ago the Imperial Government came to the aid of these Scotch universities and undertook to provide adequate life pensions, according to certain rules, for professors retiring under the circumstances named. Little chance have the universities of Canada that the Canadian Government will ever help them in this way, and they must, for the most part, be content with the time-honored usage. Two or three exceptions there may be, and of these Montreal will be proud to learn that McGill university will be one, not through Imperial liberality, but through the royal gifts of three donors, whose names I need not tell you, but who have, within the last few weeks, each subscribed $50,000 to make up a superannuation fund of $150,000 for the univ sity. I think it speaks well for the university as well as for the donors, that not the slightest hint of the great advantages to the university of such a fund has ever been put forward by the university. The action is purely spontaneous."

—The Redemptorist Fathers of Montreal intend to erect a Seminary of Theology and Philosophy in Montreal. This has been their desire ever since their arrival in St. Ann's parish. At present Canada, with the West Indies, simply form a vice-province, depending on Belgium, and postulants and novices are obliged to go to Belgium to enter the order. The whole course of studies must be completed in Europe before the young divinity student is allowed to return to his native land. In the United States a postulant may remain in his own country and become a Redemptorist Father, but should a Canadian go to study in the United States or in England,

he would be obliged, unless he obtained a special permission, which is rarely granted, to remain in either of these ecclesiastical provinces. This is considered a very great disadvantage, which the Fathers are about to endeavor to remedy. As this country has been erected into a vice-province within the last couple of years, it only now remains to erect it into a province. It is not want of money that has prevented this project; but it was feared that there would not be sufficient students to warrant the execution of the undertaking. Since their arrival in this city the Redemporist Fathers have been joined by about 15 or 20 young gentlemen who are now pursuing their studies in Belgium at the mother house, and this number would form the nucleus with which to begin a studenda.

—President Eliot, of Harvard University, completes this year his twenty-fifth year in his office, and the Harvard Clubs throughout the country intend to unite in commemorating his silver anniversary by presenting to him a gold medal, appropriately inscribed, at the alumni dinner on the next commencement day. But one other President of Harvard has served longer than President Eliot.

—The *Educational Review* of New Brunswick, in speaking of the Bathurst School Case, says that the finding of the Commissioner is regarded as an impartial and conscientious judgment of the matter in dispute, and will no doubt be accepted as such by all who do not wish to see our excellent school system imperilled by prejudice and groundless fears. If the school law continues to be administered with wisdom and tact, as it has been since its inception in New Brunswick, there is no need that the consciences of any sect shall suffer, or that passion or prejudice be stirred up in any locality, if the administrators of it in these localities are prudent men, and have some regard for the feelings and views of their fellow-citizens.

—J. C. Wilmerding, who died recently in San Francisco, bequeathed $400,000 to the Regents of the University of California, for the purpose of establishing and maintaining a School of Industrial Arts. The testator states that the object of the School shall be "to teach boys trades, fitting them to make a living with their hands with little study and plenty of work"—a wise and practical suggestion, truly.

—The next considerable scheme for adding a great inland city to the list of seaports is the Brussels ship canal project. Brussels already has a small channel for ordinary canal boats which makes its way to the sea, and it is proposed to utilize this passage, transforming it into a veritable waterway for ocean-

going ships. The present plan does not contemplate a depth great enough for vessels of the first rank, but it is estimated that an expenditure of some $10,000,000 would complete the system in such a manner as to give a uniform depth of twenty-two feet, which would admit vessels of somewhat more than two thousand tons. The Belgian Government has already made a subsidy appropriation towards the project, and has offered to take a considerable part of the stock of the canal company, so that the plan may be considered as upon a practically assured basis.

—Grenville S. Redmond, the deaf and dumb boy who has so rapidly gained distinction in the famous Julian Academy of Fine Arts in Paris, had been an inmate of the Institution for the Deaf, Dumb and Blind at Berkeley since January 2, 1879. While there he gave evidence of great ability. When a mere lad he used to draw with colored crayons remarkable battle pictures and scenes from life, as background scenery for pantomime entertainments at the Institute. His color effects were wonderful, and it is in that direction that he is bound to make a success.

—It is said that the next meeting of the Dominion Association of Teachers is to be held during the Easter holidays of 1895 in Toronto. The next meeting of the National Educational Association of the United States is to be held in Ashbury Park, New Jersey, in July. The annual convention of the Provincial Association of the Protestant Teachers of Quebec is to be held in October as usual.

—Professor Virchow, on assuming the office of Rector of Berlin University, delivered an address on "Study and Research." The purpose of University study, he said, was a very high one; it was to foster general scientific and ethical culture, and the mastering of whatever science the student chose as his specialty. In the higher schools instruction in the ancient languages has from the first had the lion's share, and it must be gratefully acknowledged, has long produced the valuable effect of laying a common foundation of culture for all the civilized European nations, and thus promoting their mutual understanding, and securing the feeling that they belong to one another. All this, he continued, has been entirely changed. The national languages have assumed their natural rights, and we have thus reached a turning-point as regards the classical languages. Grammatical discipline is not the means of progressive development which our young people need, and which generates that love of learning which is

the condition of independent self-development. The methods of other disciplines are now so perfect that they can completely fulfil this end. These disciplines are the Golden Triad—mathematics, philosophy, and natural science—on the development of which all Western civilization rests.

—A contemporary gives both sides of the question about trained teachers in this way: "The accusation brought by the higher grade teachers against the primary teachers of to-day is that they do not train the children to *study*. This the accused take calmly, because, they say, the lower grade teachers always have been, and always expect to be, blamed for whatever shortcomings may appear in the upper grades, and they can only do their best and let them grumble—the trouble is in the children and not in the teaching. It seems to me that there is something to be said on both sides. It is universally acknowledged that the real teaching method, set forth in manifold ways by our normal schools and summer institutes, has not become as wide-spread in the grammar and high schools as in the primary. The cry now is for secondary normal schools." This may be the case in the United States, but in Quebec the anxiety is about trained elementary teachers, and the means of providing such for the country schools.

—The "Circuit or County school inspectors" in Prussia are mostly professional men. Seventy-two were teachers in gymnasia, forty-seven normal school teachers, thirty-three principals and twenty teachers of common schools, seventeen teachers in progymnasia, thirteen clergymen, eight teachers in modern high schools, three principals of high schools, one teacher of agriculture, two principals of normal schools; of four inspectors their former occupation is not stated. The minister of instruction has issued an order according to which the teachers are responsible for books loaned to pupils from school libraries. They are also made responsible regarding the contents of the books purchased, and must see to it that the books are not offensive to the religious conscience of their pupils. The government has refused to allow religion to be taught in the Polish language in the Eastern provinces where the majority of pupils come from Polish homes.

—The wisdom of employing devices in the school-room to the extent now practised is being seriously questioned by thoughtful teachers. Prof. J. E. Rodgers, of Texas, in a discussion on primary methods at the association in that state, said:—"Some teachers appeal to the devices in order to arrest attention of the child and concentrate it upon the subject in

hand. We are told to follow nature. Will you tell me where did nature ever resort to device? Nature does not introduce devices. If we are assistant teachers aiding nature, the room for devices is very small. When you take your boy or little girl to the photograph gallery and he is impatient the fond parent takes a little rattle to divert attention. Take the honey bees. They are the architects of their own fortunes and mansions. They operate from instinct. Never do they resort to a device. We have instinct, reason, judgment, and power of analysis. It does seem that the teacher should be so thoroughly equipped that he need never resort to device. Devices arrest attention for a while but distract attention. You must use a device as if it were part of the work germain to the subject. Look at a planet through a telescope. Do you see the glass through which you look. So with devices; you must look through without seeing it at all. One of the results of devices is, our boys do not understand their own language. This is one of the most doleful results that could exist."

—One inspector asks us if we think that examinations in schools are of value. Unhesitatingly we say, yes. The fact that teachers have made too much of them, or abused them should not throw them out altogether. They may be called tests or reviews or what not, but the pupil should be trained to express in writing what he knows on certain topics. He should be so trained that he can do the work as he would any other appointed school work, and like it as well.

—The new president of Switzerland, recently elected, is Emil Frey, who emigrated to this country, and in 1861 was a farm hand in Illinois. When the war broke out he enlisted as a private in the Union army, and faithfully served until the close of hostilities, having participated in several of the principal battles, and endured imprisonment in Libby and other Southern prisons. After the war he returned to Switzerland, where his excellent education, vigorous and useful career as a journalist, soon brought him to the front among the public men of his country, and now he has received the high honor of election to the presidency.

—The school baths established three years ago in Prussia have proved to be very beneficial. The pupils are healthier and the cleanliness of body and clothing in the lower schools has greatly improved.

—Some time ago the Bernese public teachers petitioned for an improved salary scale. By 2,512 against 1,100 votes, a new scale of salaries, materially improving the position of the

Bernese teachers, has been accepted by the citizens of Bern. Considering that no small portion of the population of the Swiss capital consists of officials in the employ of the State, who look with an envious eye on the apparently short hours which teachers work, the victory is a notable one. The men teachers will henceforth receive 400 francs per annum more, and the women teachers will benefit at the rate of 200 francs per annum. Half the rise in salary will take effect from the beginning of 1894, and the other half from the beginning of 1896. Henceforth the men teachers in Bern will receive from 2,450 to 3,350 francs, and women teachers 1,700 to 2,450 francs. In addition to this increase, the pensions have been raised from 500 to 800 francs. These pensions are claimable in the case of men after thirty years' service, and in the case of women after twenty-five years. The additional cost to the town finances is estimated at from 30,000 to 40,000 francs per annum, but this will be somewhat reduced by the raising of the maximum number of scholars per teacher from forty to forty-four, and by increasing the number of hours each teacher works from twenty-six to thirty-two.

—A teacher saw something done at a desk that he wished far otherwise; he said nothing at the time. A moment's lull between the classes gave him the opportunity he needed. "Let me read you a few lines from Henry Ward Beecher: "'Of all creatures there is not one that has a better right to be a hedgehog than a hedgehog, but he is not a pleasant neighbor; he is not a pleasant companion; few have a good word for him.'"—*School Journal.*

—There is in existence on Puget Sound, an organization known as the "Schoolmaster's Club." Male teachers only are eligible to membership in this club. Male citizens only may attend its "Pedagogical Tournaments." Tournaments?—A misnomer we fear. For in the tournaments of medieval fame ladies were invited to a seat in the audience, if not to a place in the lists.

—The contest for science-teaching is only of passing interest, for the issue admits of no doubt. On the side of the opponents there are prejudices and ignorances, but on the other is the whole universe. Science-teaching should be progressive, and should start at the foundation; as, for instance, in the building of a house. The first stuff is lime and gravel. To make lime, limestone or chalk is needed, also fuel to quicken or burn it; requiring the description of wood, the growth of plants, and the process of combustion. Coal, ashes, cinders, breeze follow.

The formation of clay, marble, granite, sandstone, and plaster comes next. In this house will be needed iron, lead, zinc, tin plate. Then glass, glue, whitewash, putty. These materials should be handled by the pupil, and the processes shown by means of apparatus. No philosophizing should as yet be done. About here introduce him to the revelation that in all the universe, as far as can be learned, there is but a limited number of prime stuffs,—the elements. Now fire, flame, water may be carefully studied. Charcoal, peat, gas, matches, and their substances, come successively. Then the papering, painting, glazing, varnishing. Furnishing would embrace numerous manufactures and processes. The next division would concern the person, with chapters on clothing, food, washing, writing, reading. Clothing includes the textile fabrics; food, the manufacture of bread, which should be an intellectual epic poem, explaining the growth of wheat, the nature of yeast, the relationship between the constituents of wheat and the body. Such a system should be introduced into elementary education, into the education of school boards, not only that the pupils may be more useful citizens, but that they may have that knowledge which alone gives happiness and never turns to bitterness,—the knowledge of the ways and beauties of nature."

—A NOBLE EXAMPLE FROM BERLIN.—A resident from Berlin, Herr Sala, has bequeathed to the town a sum of 300,000 marks (nearly £15,000), the interest on which is to be employed in sending to the country or to the seaside sickly children of both sexes. Children of all religious beliefs are to be eligible to participate in the benefits of Herr Sala's bequest.

—A WEALTHY TEACHER'S WILL.—The town of Kreuznach benefits to the tune of 100,000 marks (nearly £5,000) under the will of Dr. Weinkauf, a lately deceased university teacher. The money is to be devoted to educational purposes. In addition to the money, Dr. Weinkauf has bequeathed to the town his library. As a mark of his gratitude to his first teacher, the testator directs that the bust of the former shall be placed in the library.

—HOW CIRCUMSTANCES ALTER CASES.—In Prussia, the Evangelical pastors are by virtue of their office inspectors of the schools in the country villages. The teachers naturally complain of this, and ask that the oversight of the schools shall be committed to educational experts. Quite as naturally, the pastors do not enter into the teachers' views on this question, but on the other hand stoutly uphold the existing order of things. At the usual conference this autumn in Berlin of the clergy of the

Evangelical Church, the question of control being exercised by persons unversed in what is committed to their inspection, occupied a prominent position in the debates. But this time it was the Church, and not the Schools, over which such control was exercised. The reverend orators complained loudly of the injustice of the laws which placed the control of the theological faculties in the hands of members of the legal profession. The inconsistency between their position with regard to their own body and the attitude they take towards the teachers' complaints, does not seem to have occurred to any of them.

Literature, Historical Notes, etc.

—The Franklin Institute has awarded the Elliott Cresson gold medal—its highest tribute of commendation—to Frederick Eugene Ives for his work in composite heliochromy. The committee of members of the Institute who investigated Mr. Ives's work was composed entirely of practical photographers who were agreed that the recipient of the Cresson honor has, by means of photography, reproduced all the colors of nature, a result never before accomplished. Incidental to their investigation was a letter from the committee to M. Lippmann, the French scientist, who, it has been repeatedly announced, has succeeded in making photographs in colors, which needed only the perfection of some details to render his process all that could be wished. In this letter to Mr. Lippmann the committee recited Mr. Ives's claims for his methods and recounted what he has accomplished, requesting the French investigator to describe his process and submit samples for comparison. No reply was received. To reproduce photographically the colors of nature has been from the time of the first daguerreotype, the ardent aspiration of everyone connected scientifically or in plain business way with the profession. At first it was only a devout wish, full of impossibilities; then it alternated from the hope of everything to the despair of all; for the past two decades it has been a will-o'-the-wisp pursued by scores of scientists, constantly confident that it was within their grasp, and as constantly stumbling into the discouraging bog of the impracticable. The number of seekers after this great climax of photography was not lessened by the rewards that were assured a successful outcome of the endeavor. To transfer nature's colors to the plate directly by the action of the sun's rays meant the discovery's adaptation to nearly all the artistic and to half the business interests of the world. The art

student need not leave his own threshold to copy the cherubs in the Madonna of Raphael; the carpet salesman could travel with an album and a tooth-brush instead of his towering trunks; the bull calf would never increase in size while the conscientious painter devoted months to a masterpiece on the subject, and the kodak fiend, in his wickedness, would rejoice at having caught the heavenly blush of his victim as she surprised him pressing the button. Mr. Ives was born in 1856, in Litchfield, Conn., and was apprenticed to learn printing at the age of 13. During the third—and last—year of his apprenticeship he devoted his available daylight hours to amateur photography, his negatives being made with a cigar box camera. Leaving Litchfield when his apprenticeship was finished, he obtained employment as a journeyman job printer in Ithaca, N.Y., but continued his photographic experiments, and finally gave up printing to accept a position as operator in a photograph gallery. When 18 years old he applied for the position of photographer to the Cornell University, and after a trial obtained the position and remained in charge of the photographic laboratory for about four years. Here he laid the foundation for all subsequent work in mechanical and scientific photography. He commenced by perfecting the small gelatine photo-engraving process, then operated with equal success in only one establishment in the country, and followed this by inventing his half-tone block process, the first in the world to be introduced into successful commercial operation. For thirteen years, until 1892, in fact, Mr. Ives was in charge of the photo-engraving department of a large engraving company of this city, bringing out in that period several minor inventions, for some of which he was awarded medals by the Franklin Institute. The most important recent work has been with his own process of composite heliochromy, which he published in 1888 and patented in 1890. At present Mr. Ives is abroad lecturing on heliochromy; he received a vote of thanks from the Society of Arts in London, only last month, after a discourse on the subject. Not to be too technical, the Ives process consists of two devices. The first is a camera attachment, by means of which three pictures representing the effect upon the three fundamental color-sensations are made by single exposure on a single sensitive plate, and from a single point of view. The device as now perfected is simple, being comprised in a small box which may be attached to the front board of an ordinary camera. The division of the little ray is effected by transparent mirrors in such a manner as to dispose the

images symmetrically on a single plane, without altering the position of the camera in relation to the object. The second device, the heliochromoscope, contains the same arrangement of mirrors, turned about so as to serve to recombine the three photographs in such manner that the photographic color-record is translated into color again as readily as the sound-record in the phonogram is translated into the phonograph. The most important advantage of this device is that it may be used at any time at a minute's notice, like the stereoscope; and, as almost everybody may possess one, it is competent to make the realization of color-photography a household affair. It is evident that the Ives system cannot serve any purpose without the employment of the heliochromoscope, or an adaptation thereof, to the projecting lantern. The Lippmann process, should it ever be perfected, must necessarily be far in advance, for then photographs could be taken in colors and duplicated. The heliochromoscope is of the present; the Lippmann invention, according to many enthusiastic advocates, has the future before it, as had Daguerre's.

—There is a Bellamy, or a son of a Bellamy, on the Hamilton *Spectator*, who has been indulging in the cheap and easy kind of prophecy of an idler's satisfied paradise, of which the author of "Looking Backward" was the Mahomet, and he has applied his imitation hypothesis to Montreal after the following fashion :—"In the year of our Lord 2000, a traveller ascending the St. Lawrence river will find the whole island of Montreal covered by a great city. There will be large parks and pleasure grounds; but the city of 5,000,000 inhabitants will spread over the whole island. There will be no vessels in the harbor except pleasure craft, because transportation by electric railway will be so much cheaper and quicker than transportation by water that inland water traffic will have ceased. The ships which must necessarily carry goods and passengers across the Atlantic, not from Canada only, but from the United States as well, will probably sail from Louisbourg. Thence they will reach Cardiff or Southampton in three days.

The streets of Montreal will be three stories high. The present surface roads will be wholly given up to pedestrians, except that the middle will contain flower beds. At about the level of the first stories of the houses on all the streets will be tracks in the centre for electric street cars, and at each side for small electric carriages, carrying from one to four persons each. The regular cars will probably be moved by means of trolleys, the wires of which will be laid beneath the cars

between the rails. The small carriages will be moved by storage batteries. Beneath the present street level, at least in the centre of the city, will be subways through which heavy traffic will be conducted. This underground traffic will also be on rails, and storage batteries will be the motive power. Throughout the whole city there will be no horse. The subways will be frostproof, and all water pipes, as well as electric wires, will be carried through them. The houses will be neither large nor imposing. Each family will have one or two sitting rooms or parlors, and one bedroom for each person, besides one or more bathrooms. The light will be electric, and electricity will also warm the dwellings when necessary. The walls, floors and ceilings of the houses will be of stone or brick and glazed, so that disease germs will find no abiding place in them. The furniture will be plain, though artistic in design. There will be nothing for mere ornament or luxury. Comfort will be consulted, but ostentation will be considered not only vulgar, but disgraceful. The lady of that day will hold earrings in the same esteem as the lady of this day holds nose rings. The barbarism which ministers to vanity with gewgaws will have disappeared. The one consideration in making any article of use—furniture or dress—will be to make it serve its purpose accurately. The people will all take their meals in public eating-houses. Their food will be purchased in wholesale quantities, cooked in a scientific manner under skilled professors, and served in the neatest possible manner at about the prices now charged for the like food uncooked. The waiters will remain almost stationary. The guest will make out his order on a little order slip. The waiter will telegraph it to the kitchen, and the food will be sent to the spot on a little electric railway. When the meal is ended, the dishes will be returned to the kitchen by the same railway, and will be washed by a machine. The food for each person will cost about 10 cents a day. People will not eat grossly, because nobody will labor beyond his strength. No wines, liquors, ale, tea or coffee will be used, because people will not tax either their minds or their bodies beyond reason, and the need of stimulants will not be felt. Five or six hours will constitute a working day. In the factories—and almost all work will be done in factories—one set of hands will work in the morning, and another in the afternoon. The power which will move all machinery, light streets and houses, warm all buildings, public and private, move all cars and carriages, and do all the work of the great city, will be derived from the St. Lawrence river. Between Lake

St. Louis and the harbor of Montreal the river falls forty-five feet. Between Lake St. Francis and Lake St. Louis it falls eighty-two feet. Dams will be constructed across the stream at more than one point, and power will be obtained sufficient to do much more than the work herein outlined when converted into electricity. The people will go to school all their lives. Education is never finished. The man, woman or child who works in the morning will go to school in the afternoon; those who work in the afternoon will go to school in the morning. There will be no "learned professions," because all the people will be learned. There will be few lawyers, for various reasons. In the first place, there will be little quarrelling about property, because everybody will have sufficient for his needs, and nobody will desire anything for display. Then everything will be bought and sold for cash, and there will be no accounts to quarrel over. There will be few doctors. because nobody will be subjected to physical or mental strain. Nobody will work beyond his strength, and nobody will worry about his business affairs. Care will be almost unknown, because every man will find employment, and no man will be anxious about the future. All men will be abstemious in eating, and there will be no drunkenness. In the evenings the people will assemble in public halls, of which there will be enough to hold the whole population. There talented persons will sing or play instrumental music or deliver lectures. The performers will not be paid for their services. Those who are eminently skilled will consider it both a pleasure and an honor to do something for the entertainment of others. The woman who works in a cotton factory may be a prima donna. The man who makes furniture may be an eloquent speaker. These persons would no more think of charging money for exercising their talents than would the lady who sings in her friend's drawing-room. The assembly halls will be built and maintained by the municipality, and there will be no charge for admission. Those who are able to make private contracts for employment will do so. Those who cannot, will go to the municipal director of labor, who will give them employment at the municipal works, where various industries will be carried on which do not conflict with private enterprise. The director of labor will also receive application for workmen from employers of labor. If it shall be found that the supply of labor exceeds the demand, the hours of labor will be shortened by general consent or by municipal law. Every man will be in-

structed in at least two trades. Thus, there will be none idle, and as only the necessaries and comforts of life will be in demand, the people will maintain themselves with the minimum of effort.

Practical Hints and Examination Papers.

Some Points for Young Teachers.—1. Do not talk too much. "In the multitude of words there wanteth not sin; but he that refraineth his lips is wise." 2. Always speak kindly to an angry pupil. "A soft answer turneth away wrath, but grievous words stir anger." 3. Never be sarcastic. "There is that speaketh like the piercing of a sword, but the tongue of the wise is health." 4. Some pupils *expect* you to scold them. By all means let them be disappointed. "Reprove not a scorner lest he hate thee." 5. Reprove and punish pupils in private; never personally in public. "Debate thy cause with thy neighbor himself, and discover not a secret to another." 6. See nothing, yet see everything. Take immediate action on very few misdemeanors. They are not half as bad as your imagination makes them. "The discretion of a man deferreth his anger; and it is his glory to pass over a transgression." 7. At the same time, do not hesitate to act promptly when necessary. "A prudent man forseeth the evil and hideth himself, but the simple pass on and are punished." 8. Don't worry. Teach under "high pressure;" govern under "low pressure." "Fret not thyself because of evil men." 9. Never become discouraged, especially with serious difficulties. "If thou faint in the day of adversity, thy strength is small." 10. "Withhold not good from them to whom it is due, when it is in the power of thine hand to do it."

—Which is the better plan in graded schools: one or two grades for each teacher? Nearly all teachers will reply at once, *one* grade. In giving this answer so promptly, are we not sometimes influenced by our ideas of what is easy? I presume that this feeling is allowable even in a teacher who is supposed by many to enjoy a very easy existence, but there is no necessity to argue that matter with teachers. I am of the opinion that one grade is sufficient for each teacher, always providing that she makes the most of the opportunities it affords her. If by one grade, one class for the whole school is meant, then a teacher can manage two grades as well as one, and I would advise school officers to impose two grades as soon as possible. Suppose there are fifty pupils in one grade in a room, should forty-nine be kept listening while one is reading, until the whole or a portion of them have read? I think not. Should the class be divided into two sections of twenty-five each, simply because it is too unwieldy? I think that one class of fifty is too large, but that is only one of many reasons in favor of two or more classes. Each teacher has many bright, attentive and regular, and only a few, let us hope,

of dull, inattentive and irregular pupils. These latter pupils cannot advance with the same rapidity that the other pupils can, they require more drill and attention from the teacher; should they be incorporated with the best pupils to be a clog upon their advance and to be discouraged by the effort, or should they be put in a class by themselves? I think they should be separated, but always with the opportunity afforded for promotion if it is deserved. On the other hand, if a pupil fails to keep up with his work there is an opportunity of putting him where he belongs. A teacher will thus have a powerful lever to aid her in her work. With only one class in each room an indifferent teacher will have much idle time on her hands. This should not be. The tendency is to put the most effort upon what is sometimes called the grading class, and to slight "class B." Do not do it. The conscientious and skilful teacher is not marked by the few brilliant pupils, but by the *few unprepared* pupils she has. It may be that the attainments of the few show the opportunities of all. Yes, minus industry on the part of the teacher. Take care of the weak ones and the strong ones will take care of themselves.

Books Received and Reviewed.

The May number of the *Atlantic Monthly* contains several very interesting articles. Among them may be noticed, "From Blomidon to Smoky:" a descriptive sketch of Nova Scotia, by Frank Bolles; two articles on Francis Parkman, by his fellow-historians, Justin Winsor and John Fiske; and, of special interest to teachers, a discussion of the Ethical Problem of the Public Schools, by President W. F. Slocum, besides a quantity of other most readable matter.

The following books have been received and will be reviewed at our earliest opportunity:—

Elementary Psychology, by Amos M. Kellogg, M.A., and A Class in Geometry, by George Isles; both published by E. L. Kellogg & Co., New York.

English History for American Readers, by T. W. Higginson, and published by Longmans, Green & Co., New York.

The Psychic Life of Micro-Organisms, by Alfred Binet, and published by the Open Court Publishing Company, Chicago.

Public School Algebra, by C. Clarkson, B.A., and Cæsar, Bellum Gallicum, III. and IV., by J. C. Robertson, B.A., and published by W. J. Gage & Co., Toronto.

Sir Francis Bacon's Cipher Story, deciphered by Orville W. Owen, M.D., and published by the Howard Publishing Company, Detroit. Volumes I. and II. of this have appeared. Volume III. is forthcoming.

Higher Arithmetic and Intermediate Arithmetic, by John H. Walsh, and published by D. C. Heath & Company, Boston.

Correspondence, etc.

EXAMINATIONS FOR DIPLOMAS.

To the Editor of the EDUCATIONAL RECORD:

DEAR MR. EDITOR,—Could not the results of the examinations for diplomas be made known at an earlier date? It would be a great convenience to teachers, considering when the examinations take place, to know the result as early as possible.

Yours truly, CANDIDATE.

To the Editor of the EDUCATIONAL RECORD:

DEAR SIR,—The following may help to piece out the wail of the gentleman who lately wrote to the *Witness* about the employment of women as principals of our schools.

Yours respectfully, A TEACHER.

An *Empire* reporter yesterday showed Public School Inspector Hughes a clipping from an afternoon newspaper, in which it was stated that eleven-twelfths of the school teachers of the city were women, and containing an insinuation that the work performed was unsatisfactory, and that Mr. Hughes was partly to blame.

"Well," said the inspector, "there were more men who held Mr. Douglas's views fifty years ago than to-day. There are men living who can remember when a 'dame school' was a rarity; now women are teaching the great majority of the English-speaking people of the world. The movement of civilization is decidedly against the views of Mr. Douglas on this question, and the movements of civilization are always in harmony with truth."

"Do you think women can discipline rough boys."

"My answer to that question may be given by illustrations. The boys in the industrial school at Mimico are those whose parents and teachers could not control them. Some of them never went to school until they were twelve or thirteen years old. They are the most uncontrollable boys in the province, yet they are controlled by women in the school at Mimico, and there is no man's class in the world in which the boys are more respectful or more responsive than they are. Miss How, who was placed in charge of the school for neglected boys, on Elizabeth Street, has been successful not only in disciplining boys, but in reforming lawless ones. The newsboys' school on Elizabeth Street is taught by Miss Fortune, and it is admirably conducted. Most of the pupils are large boys, who are of the most troublesome age; but Miss Fortune, although a young girl, has never had any trouble with discipline. Dr. Harris," the Inspector proceeded, "the most experienced educator in America, and the Commissioner of Education for the United States, said at the recent convention of superintendents at Richmond, that when he was superintendent of schools in St. Louis, about thirty years ago, the board ventured to appoint a number of lady principals, and that the conduct of the large boys in school and on the street improved very rapidly, while the

number of cases of corporal punishment was at once reduced by over fifty per cent.

"But do not boys of thirteen or fourteen need to be with masters to become virile and energetic?" Mr. Hughes was asked.

"No. It would be hard on the race if boys had to get their virility from associations with adults of either sex. It is by playing vigorously with boys of their own age that boys develop force and energy of character. The outdoor sports of England have given Englishmen their superior manly character and their self-reliance. The French and the Prussians have adhered more tenaciously to the custom of having male teachers than the English have, and yet the educators in both France and Prussia recognize the fact that Englishmen are more energetic and self-reliant, and that they have more power to resist disease than Frenchmen or Prussians. Both French and Prussians attribute the difference properly to the outdoor sports of England, and two years ago the Prussian Government sent sixty men to England to study the games of that country. Since that time nearly five hundred public playgrounds have been established in Prussia. Our greatest educational need at the present time, especially in cities, is large playgrounds, where boys, and girls too, may develop their physical powers and their characters. Energy and force may be developed there as nowhere else. The strangest thing of all to me," Mr. Hughes concluded, "is the fact that even a few men continue to ignore or forget that there are girls in the schools as well as boys, and that in nearly all cases our classes are mixed classes. Even if it were true that men were better teachers for boys, it would follow from the very same arguments that they cannot be so good for girls. Surely the training of girls is a matter of vital importance. There was a time, not so long ago, when the schools were for the boys alone. Some men have not fully outgrown the effects of that time."

To the Editor of the EDUCATIONAL RECORD:

DEAR SIR,—As a reader of the *School Journal*, I have clipped the following from that periodical, giving a programme of a unified day's work in an elementary school, and will be very glad, indeed, if you will insert the extract for the benefit of my fellow-teachers. I have left out the musical part of the programme, in consideration of the typographical difficulties in the way of reproducing it.

Yours truly, ELEMENTARY TEACHER.

WORKING THEORY.—Unification.

GENERAL AIM.—To develop mind and body.

SPECIAL AIMS.—1. To intensify right motives; 2. To increase intelligence with regard to clocks; 3. To give practice in the subjects of the grade.

DAY'S SUBJECT.—The clock.

At nine the door was closed and the roll called. All present replied to their names with the greeting, "Good morning!" As the

teacher closed the roll-book, she smiled kindly at her assembled pupils and said, "Good-morning, children." Then she turned to the blackboard and wrote "49 early children."

As it was a bright morning, the class sang cheerily, "Good Morning, Merry Sunshine!" This song finished, two or three children, waiting outside, too late to bid their teacher good-morning, were admitted and marked late as they sheepishly took their seats. Then began

THE MORNING TALK.

The teacher read from John xv., 27: "And ye also shall bear witness, because ye have been with me from the beginning," and preached the following tiny sermon from it:

"This is what Christ said to his disciples—that they had been with him from the beginning, and so could tell the world about him when he was gone from the sight of men. If they had not been with him *from the beginning*, they could not have known him so well; they could not have loved him so well; they could not have learned all the beautiful lessons he taught them; they could not have told the world so much about him. Many, many people now-a-days would give all they have on earth for one glimpse of Christ's face; and these men, these friends of his—just think of it!—were with him *from the beginning*. How happy it must have made them. But we, too, can be happy with Christ in a way. When we are good, we are with Christ; when we do as he tells us to we are with him; when we are loving and kind we are with him; when we are brave and truthful we are with him. Let us try to be with him all the time, from the beginning of every hour, and from the beginning of every day. Don't let us 'wait a minute' to do something naughty, and then turn to go with Christ. You children have the great privilege of being with him from the beginning of your lives, as some grown people have had. You know about him *now*, and how to be good, as he would have you. Some people hear of him too late, for if we begin to be good when we are nearly grown up, we cannot learn to be *very* good. We must begin in time; and so it is very fortunate for you that you have good parents and school and Sunday-school to teach you how to be with Christ *from the beginning*.

THE LESSON IN ETHICS.

There are a great many kinds of goodness—a great many ways of being good. You may tell me some of them.

(The children cited, in their childish ways, the virtues they had learned about.)

"Yes," continued the teacher, "we are with Christ when we are quiet in a sick room, helpful to our parents, kind to our playmates, thoughtful for the weak and the old, clean and tidy in our habits; but the kind of goodness we are going to study to-day hasn't been mentioned by any of you. Big folks call it punctuality. We will

call it promptness, being early, always being on time with all that we have to do. The little girl that says, 'Wait a minute,' when mamma wants her to do something right away, is not with Christ when she says that. The little boy who waits for mamma to call him half a dozen times before he gets up in the morning, isn't with Christ *from the beginning* of the day. When we wake up in the morning, we ought to think, 'Oh, dear me! how short the day is going to be!' and jump right up, so as to do all the good we can from the beginning. Some of you children could do good early in the morning by learning to wash and dress yourselves nicely, so that mamma needn't have the trouble of doing it for you any more."

THE OBJECT LESSON.

"Now, if we want to be prompt, to be always on time, what must we look at often? Some of you are looking at the clock. What must little children learn to do, before they can look after themselves in this matter of always being early? Yes, we must have clocks; and we must learn to tell time. How many clocks have we in this room?"

"Three."

"Two: the big one on the wall and the little one on your desk. That one leaning against the blackboard isn't a real clock. It's only a clock face. It won't go."

"Which of the two clocks would you like to have?" "The little one, because it's pretty." "The big one because it goes without winding up."

"But the wall clock would not go if the man forgot to attend to the electrical machine down cellar. Of what use is this clock face?" "To move the hands around." "To learn to tell time." "You can set it any time you like."

THE NUMBER LESSON.

How many hours on the face of a clock?

How many hours from nine o'clock in the morning to nine o'clock at night?

How many hands have four clocks?

How many long hands have nine clocks?

How many short hands have seven clocks?

How many feet have three clocks like this one?

How many feet have a hundred clocks like the one on the wall? (None.)

How many hours is it from one to four?

If this little clock cost a dollar and a half, how much would two such clocks cost?

If the wall clock cost $4.00, how many could I get like it for $8.00?

A jeweller has eight clocks on a shelf. Five are wound up and the rest are not. How many are ticking?

How many are not ticking?

Slates were collected and the talk proceeded.

You think the little clock pretty. Tell me what there is pretty about it. "The gold and silver." "The cunning little feet."

But there is no gold or silver about it. The feet and ring are brass, and what looks to you like silver is only a nickel plating. However, I think the brass and nickel as pretty, as you do. Tell me what a clock and a little child must always have (taking duster from desk and polishing glass)? "A clean face."

I can set my clock or the wall clock any way I like. "They won't stay, unless they're run down. The clock face stays any way you put it."

Well, who wants to set it at the time he got up this morning? (Two or three succeeded, and others read off the time thus indicated.)

Who wants to tell us at what time his family has dinner? (More were able to do this. Others followed, using the clock-face to show breakfast, supper and lunch time, the time for opening and closing school, bed-time, Sunday-school time, etc. Each indication was read by some pupil, and the brighter children made all necessary corrections.)

We will keep this up from day to day until you all know how to tell time, and then we need have no more late children, because you can watch the clock for yourselves. We are going to have recess at this time (setting to 10.30). Now you may tell me why you think more of the two real clocks than you do of this clock-face? "They're some use." "They tell the time."

But, sometimes this little clock of mine that you think so pretty is a naughty little clock. What do you suppose it does? "It goes fast." "It stops." "It goes slow." "It don't tell the time right." "It tells stories."

It *doesn't* (emphasized to correct the "don't" erroneously used by a pupil) always tell the truth. If I were to let it go on without correcting it every day, it would soon tell me it was three o'clock at four, and if I were to believe it instead of the wall clock you would get home late from school. Tell me, why are clocks like people? "They must tell right or they ain't any good." "They have hands." "They have a face." "That little one has feet."

Their hands, faces and feet are not like ours, but clocks are *just* like us in one thing: *They must tell the truth*, or we can't believe them. How do clocks tell the time? "Their hands point to the numbers."

Sometimes I ask where a certain word is on the blackboard. One boy will point to the word. Another will say, "It's the third word in the second sentence." Which boy is like the clock? "The boy that points." And why is a clock like a deaf and dumb person? "Because it can't hear." "Because it can't talk—it has to point."

What makes the hands go? "The wheels, in the back."

The wheels, behind the face; and this is what they look like. I

borrowed these works from a watchmaker to show you. Some time to-day, I shall let you, a few at a time, look at them closely and see how one wheel moves another, and how the works move the hands. This is how it is wound up, and this is how it looks when the wheels are all in motion. Why may we call this the brains of the clock? "Because the works make the hands go."

Yes. If your brains didn't tell your feet where to take you, and your hands what to do, you would be very quiet little boys and girls, indeed. Well, Charley? "My uncle said he felt as though his works were all run down. What did he mean?" I am afraid your uncle had been using himself pretty badly. He thought of his stomach as one wheel, and his heart as another, and his lungs as two more, and his brain as another; and, because he had not fed his stomach as it ought to be fed, or filled his lungs with good, pure air, or given his brain enough sleep, the whole machinery was out of order. Don't let us abuse ourselves like that. It is time we took in some good long breaths of pure air. Open the windows wide, Harvey. (Class stood up and had a breathing, chest tapping, and stretching exercise, after which the windows were closed and slates taken, and the children wrote their names and answers to the following questions, as the teacher gave them out:)

PREPARATION FOR DRAWING.

Yes, indeed! clean faces are pretty. And I see other things about the clock that make it pretty—prettier than we could make it. Suppose you were to try to draw it? "We could not make it so round."

No, I'm afraid you couldn't, for it's a perfect circle, but we'll try by-and-by. How about this clock-face? "It has a circle, too." Set in a piece of —? "Pasteboard." What is the shape of the cardboard? "Square." Could you make such a square? "No, ma'am."

No, your square would not be quite so *true*, and so it would not be quite so pretty. Everything perfect in its way is beautiful, and so these squares and circles and neat, perfect numbers on the clock-face are beautiful. The prettiest thing to me about the clock is its neatness.

Now, you may tell me about your mamma's clock. Close your eyes and see just how it looks for a moment, before you begin to talk about it. (The teacher seemed to realize that she had done more than her share of the talking thus far, for she simply indicated the children who were to speak, and expressed her interest in what they said by smiles and nods, while she watched their language and took down some of their errors, such as, "It ain't," "It don't," "Ain't got no," "seen" for *saw*, etc. At 10.15 she closed the talk and wrote the following sentences on the blackboard:)

It *isn't* a new clock.
It *isn't* ten years old yet.
It *doesn't* go too fast.
Mary *doesn't* own a clock.
She *saw* my watch.
I *saw* her mother's clock.

THE LANGUAGE LESSON.

Well, Geoffrey? "I don't know the fourth word in the second line." Who can help Geoffrey? (Words unknown to some pupils were known to others, and they prompted one another until all could read the sentences.)

Why have I underlined some words? "So we'll read them louder." "Because some boys made mistakes." (The sentences were read as italicized, by individuals, and then, each several times, by the class in concert.)

Did that reading sound like talking? "No, ma'am." What shall I do? "Take away the lines." Then what will *you* do? "Read like talking." (The underscoring was removed, and the sentences read with natural emphasis and erased. The deportment bell for recess closed the exercise and emptied the class-room. The teacher examined the slates, making some notes as to the failures and successes of her little arithmeticians, and then wrote the words of the first, second and last stanzas of the following song upon the blackboard, changing "guarded" in the last line to careful, and finishing just as the class filed back to seats.)

THE READING LESSON.

Arthur (a dull boy) may tell me all the words he knows in these lines, and where to find them, and I'll put a tiny yellow cross beneath each. (Other pupils followed Arthur until all words known were thus marked.)

I'll sing you the song, pointing to the words, and when I have finished, you may show me what new words you have picked up. (Teacher sang all three stanzas, and pupils remembered and told several new words.)

What does the first line say? Florence may make it true. (Florence placed the clock in the centre of the teacher's desk.)

I'll sing the song once more for you, and then you may try once to sing it through with me. (Teacher sang. Pupils pointed out new words "picked up" during the singing. Class made a good attempt to sing it through with teacher.)

Mary read the third line of the first stanza. Laura, which hand shows the minute? Joe, which shows the hour? Franklin, is the second stanza about the little desk clock? How do you know? "Because the little clock has no pendulum."

THE CALISTHENICS.

Class, stand. Right about—face! (So as to look squarely at the wall clock.) Stretch out your right arm as far as you can and point to the pendulum. Move the whole arm back and forth with the pendulum and say what the clock says. (Each arm separately and then both together were given this exercise while the tongues kept time with the regular "Tick-tock.") Arms down! Left—face!

(Bringing right side toward clock.) Swing your right arm from the shoulder like the pendulum, saying tick-tock. Swing it as though you had something heavy in your hand. Right about—face! (Bringing left side toward clock. Same with left arm.)

Front—face! Clasp hands at back of neck. Swing your right foot like a pendulum, saying tick-tock. Have a heavy weight tied to your foot. (Same with left foot.)

THE DRAWING LESSON.

We are going to draw the clock-face. We will draw it in air first. Reach out your right arm and place it for the upper straight line. Draw. (A strong horizontal sweep of the right arm resulted from former exercises of this kind.) Place for left vertical. Draw. Right vertical—draw. Lower horizontal—draw.

Now, we must make the circle inside the square. I am glad you made squares as large as your arms would reach to make them. Place at middle of left vertical. Swing up and around—once—twice—three times—four—five—six—seven—eight times—down! Seats! Draw the clock-face as large as your slates will allow. Willie, Nancy, Sue, Sam, Edgar, and Lemmy (children with cramped, stiff habits of execution) may draw on the board, so as to have plenty of room for big, big clocks.

What did I say was the prettiest thing to me about the clock? "Its neatness." Well, I hope I shall find your drawings pretty in the same way. (While the children drew and compared their drawings, whispering a little without rebuke, the teacher wrote between lines, in Spencerian script that was nearly perfect, the line from the third stanza of the song, "*My hands when they're moving, must always do right*," and distributed double-ruled books and lead pencils. She then examined the drawings and told the class to turn their slates over and draw the little clock or the wall clock, whichever they liked best. While they did this, she gathered about her, group by group, the pupils to examine the clock-works, conversing with them in low tones about the spring, the various wheels and their connections.

THE PENMANSHIP LESSON.

A little more practice on the song, was followed by an exercise in writing in air, while standing. Resuming seats, the children practised a series of movement exercises with meat skewers on waste paper, and then wrote the copy the teacher had set upon the board twice in their books, receiving careful instruction as they wrote. This closed the morning programme, which, while very little resembling the typical school morning, had embraced reading, writing, arithmetic, ethics, physical exercise, drawing, music, language training, and thought training. The teacher said she intended to emphasize word and number drills in the afternoon, with more of the versatile employment that had filled the morning."