Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

- [ ] Coloured covers/
  Couverture de couleur
- [ ] Covers damaged/
  Couverture endommagée
- [ ] Covers restored and/or laminated/
  Couverture restaurée et/ou pelliculée
- [ ] Cover title missing/
  Le titre de couverture manque
- [ ] Coloured maps/
  Cartes géographiques en couleur
- [ ] Coloured ink (i.e. other than blue or black)/
  Encre de couleur (i.e. autre que bleue ou noire)
- [ ] Coloured plates and/or illustrations/
  Planches et/ou illustrations en couleur
- [x] Bound with other material/
  Relié avec d'autres documents
- [x] Tight binding may cause shadows or distortion along interior margin/
  La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure
- [ ] Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
  Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

- [ ] Additional comments:/
  Commentaires supplémentaires:

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- [ ] Coloured pages/
  Pages de couleur
- [ ] Pages damaged/
  Pages endommagées
- [ ] Pages restored and/or laminated/
  Pages restaurées et/ou pelliculées
- [x] Pages discoloured, stained or foxed/
  Pages décolorées, tachetées ou piquées
- [ ] Pages detached/
  Pages détachées
- [x] Showthrough/
  Transparence
- [x] Quality of print varies/
  Qualité inégale de l'impression
- [ ] Continuous pagination/
  Pagination continue
- [ ] Includes index(es)/
  Comprend un (des) index

  Title on header taken from:/
  Le titre de l'en-tête provient:

- [ ] Title page of issue/
  Page de titre de la livraison
- [ ] Caption of issue/
  Titre de départ de la livraison
- [ ] Masthead/
  Générique (périodiques) de la livraison

EDUCATIONAL JOURNAL

OF WESTERN CANADA.

Edited by G. D. Wilson

CONTENTS FOR MARCH, 1899.

The subscription price of the EDUCATIONAL JOURNAL OF WESTERN CANADA is $1.00 a year, 10 numbers, none being issued in July and August; single copies 15 cents. THE JOURNAL appears, with the above exceptions, on the Fifteenth of every month. Subscriptions may begin at any time. When so ordered the magazine is stopped at the expiration of the subscription. Without distinct orders to the contrary it is continued, as it has been found that such is the wish of a large majority of subscribers. When subscribers fail to receive the magazine promptly they will confer a favor by notifying the publisher at once. Articles, books for review, and all communications should be addressed to the

EDUCATIONAL JOURNAL OF WESTERN CANADA,

BRANDON, MAN.

Brandon's Fashionable Dry Goods & Clothing House.

A. C. FRASER & CO.

The Greatest Mail Order House in Western Manitoba
When Ordering by Mail give as near a description of the article as possible.

Ladies' Jackets and Capes.

Ladies' Jackets in all sizes in Blacks, Greens, Fawns and Browns.

Silk lined Jackets at $10.00.

25 only Black Jackets in spring weights, go on sale at $2.50. All new goods.

Fine Beaver Cloth Jackets, $7.50.

Blouse and Whitewear.

Send to us for your Blouses and Whitewear. All sizes in Stock.

Fine white Underskirts with deep frill of embroidery, $1.00.

Beautifully finished and well-trimmed Night Dresses, 90c.

Linen Crash, Pique & Bedford Cord Dress Skirts.

Fine Crash Dress Skirts, $1.25.

Pique and Linen Skirts, $2.25.

Fine new Blouses in neat patterns, 50c. and 75c.

White Pique Blouse also a fine lot of fancy Pique, $1.75 and $2.00.

Silk Blouses in Plain, Taffatas, Greens and Navies, $5.00.

Red and Green Plaids, $6.00, in the best Surah Silks.

Fine Whitewear in sets—Shirt, Night Dress, Chemise, Drawers and Corset Covers to match.

Ordering Blouse Waists just send bust measurement.

Fine Japanese Silks in all colors, 25c. a yard,

Ladies' Gloves Corsets, Trimmed Sailor and Walking Hats,

New Kid Gloves in Greens, Blues Helitrope, Tans and Blacks.

Our very best kid Glove with 2 dome fastenings, in the new shades, 1.75 a pair.

The best Tans, Browns and Blacks, every pair we guarantee, $1.25 a pair.

Other lines at 75c. and $1.00.

Send us $1.25 and we will forward you the best corset that is manufactured to.day.

All sizes of Corsets at 50c, 75c, $1.00, $1.25, $1.50, $1.75, $2.00, $2.50 and $3.00 a pair.

Fine English Cashmere Hose in all sizes, 25c. and 35c. a pair.

Fine Lisle Hose in Children and Ladies size in fancy Plaids.

All that is new in Sailors and Walking Hats will be found here.

Clothing and Gents' Furnishings,

We carry an immense stock of Men's and Boys' Goods.

Men's Suits at $4.50 and $5.00 in good strong Tweeds.

The best $15.00 Worsted Serges in Black and Navy, we sell for $11, in all sizes.

The very best line of English and American felt Hat.

We guarantee satisfaction when dealing here and will refund the money and take back any goods that are not so. You run no risk with us, we are here to serve you and serve you well.

Try Our Mail Order Department.

A. C. FRASER & CO.

Brandon's Fashionable Dress Goods and Trimmings House. Samples Sent to any Address Free of Charge.

BRANDON, MANITOBA,

EDUCATIONAL JOURNAL

of Western Canada.

VOL. 1. BRANDON, MARCH, 1899. No. 1.

CENTRALIZATION OF SCHOOLS.

The following paper was undertaken, at the request of the editor, with the view of directing attention to a question of some importance in the educational work of the province. Manitoba holds a high place in what she has done, and is doing, for education; and even with the sparse settlement, has placed the means of education within the reach of every family. The rural schools are doing good work in spite of disadvantages. Their results are steadily improving, and will compare favorably with other places better situated as to population and age of settlement. The problem of schools in an agricultural country must always present some difficulty, and the question now being considered is, whether the time is ripe when by a modification of, or change in, existing arrangements, they can be made more efficient.

To those who have been in any way associated with the work of rural schools, the question must often have presented itself, whether the results secured are commensurate with the time and money expended. Just as soon as the requisite ten children are in residence, a school district is formed, a small building erected, and a teacher engaged. At first the number on the school register will be about ten, and the average attendance half that number. As the years go by, the numbers may gradually increase to thirty, with an average attendance of twenty. The school is open for eight months in the year, afterwards nominally for the whole year, with holidays in the winter, but the attendance is so decreased in the cold weather that often the school might as well be closed. Usually there is a different teacher each year, a large number holding third class certificates. Owing to the number of schools to be visited, the inspector can only visit once a year. The teacher, therefore, has to work alone without the benefit of frequent supervision. The pupils vary in age from 7 to 16 years. Under such circumstances neither teacher nor pupil can work to advantage. The teacher's energies are distributed over too large an area, and due grading is impossible. In some of the schools there would need to be almost as many grades as there are pupils. The result is that not much is taught beyond the general subjects of reading, writing, arithmetic, history, geography, and composition. The other branches, such as music, drawing, and physical culture are largely a dead letter, while algebra, geometry, etc., are unknown quantities.

The boy begins going to school when about seven years old. During the summer he attends fairly well, and makes progress, but with winter's approach he must stay at home. There, as a rule, little or nothing is done to keep up the work, and the boy spends the time forgetting much of what he has learned. When he sets out the following spring he has probably a new teacher, and some time elapses before he comes to the point where he left off the previous year. Thus it goes from year to year, and at the age of fourteen, he leaves school, barely up to the standard of a third class examination, and with none of the accessory accomplishments which mean so much in later life.

Contrast this with the work done in the city. There large buildings, airy rooms, and pleasant surroundings constitute a stimulating environment. The enthusiasm of numbers becomes also a valuable factor. The classes are closely graded, and a teacher easily takes charge of fifty

pupils of one grade. The work is done under constant supervision. There is no waste of teacher's energies, each teacher becoming an expert in his or her own department. All branches of education are taken up, the course of study preparing the pupil for entrance to the university, while a commercial course is provided as a preparation for practical business.

The subjects taught in Winnipeg public schools are, arithmetic, algebra, geometry, trigonometry, book-keeping, physics, chemistry, physiology, botany, agriculture, geography, history, English literature, grammar and composition, reading, spelling, writing, shorthand, drawing, music, French, German, Latin, Greek, physical drill.

The pupil loses no time; he can be present every teaching day in the year, and, in short, gets a better and wider education in four years than the boy in the rural school does in six.

It will be found that the poorer results cost the larger amount. The disparity can be shown by a comparison between the city of Winnipeg, on the one hand, and a rural municipality on the other. For this purpose I have selected Winchester municipality, being the one in which I am resident, and with which I am acquainted, but the general showing will be found to be much the same in all rural municipalities. There are some union districts, partly in Winchester, and partly in neighboring municipalities. These are treated as if wholly in Winchester, and the amount contributed for their maintenance by the other municipalities has been included in the cost of operating. In Winnipeg, during 1897, there were one hundred teachers, (all holding second-class certificates or higher) with 5,259 pupils enrolled, and an average attendance of 4,488. This gives one teacher to fifty-two pupils enrolled, and to forty-four in average attendance. The cost of tuition per pupil was seven and one-half cents per day. In Winchester there were twenty-nine school districts, three of which were closed, and one in Deloraine, being an intermediate school, is not included in the estimate. In the other twenty-five districts there were enrolled 676 pupils, with an average attendance of 335. This gives one teacher to twenty-seven enrolled, and to thirteen in average attendance. The amount paid in teachers' salaries was $9,758 equal to seventeen and one-quarter cents per day per pupil. In the above comparison there are to be noted:

(1) The average attendance—85 per cent in the city, and barely 50 per cent, in the rural school.

(2) The number of children to each teacher—forty-four in the city, and thirteen in the rural school.

(3) The cost of teaching—seven and one-half cents in the city, and seventeen and one-quarter cents in the rural school, or about two and one-half times as much.

While these are the average results there are details which make a worse showing. Three districts, as already stated, had no school, although they have been organized several years. Nine districts had an average attendance of less than ten, the lowest being 5.69—each pupil in that district costing in teacher's salary alone $59 for the year; equal to forty-two cents per day of actual attendance—while in one school the teacher attended regularly for days without having a single pupil.

The question arises, "Can anything be done to give the children in the rural districts advantages similar to those enjoyed by children in the cities?" The results obtained in the cities are due to the aggregation of numbers. If therefore, we can secure a similar aggregation of numbers, we can secure similar results. The plan suggested is to centralize, and instead of forming a large number of small districts, to have one or more large schools in each municipality where pupils could, if necessary, be boarded. No one need be further than, say, twelve miles from such a school, and pupils could go home from Friday to Monday.

Let us see what would be the probable effect of such a change. There would be, first, a greater regularity of attendance on the part of the individual pupil, and a consequent increase in the general average attendance. In Winchester, under the conditions already mentioned, this

would mean an increase in attendance from 335 to, say 500. There would require ten rooms with ten teachers, instead of twenty-five teachers as now required. The benefits to the pupil have been already indicated in the general results of education in a city school, due to continuous schooling, close grading, extra subjects of study, and so on.

There is another very important consideration in this connection. One of the unfortunate results of public schools generally, is that parents are apt to think that the school does the educational work, and themselves have no further responsibility. The hours spent in the school room are really only the means to education, and the education which a man gives to himself is the most potent. In this matter of self-education books play a predominant part, and yet little or no endeavor is made to provide this necessary mental atmosphere. Mr. A. S. Rose, public school inspector, in his official report for 1897, gives expression to his opinions on this point. His statements are worthy of a better fate than to be buried in a parliamentary blue book. He says:

"If some method could be devised by which our schools could be amply supplied with good supplementary reading, the most difficult factor in the problem of teaching children to read would be removed. In most rural schools the children are suffering from a kind of mental starvation, resulting from the lack of reading matter. If the child is to make any real progress in learning to read, his interest must be aroused. It is painful to note the dreary ploddings of the child through the time-worn lessons of the authorized text-book in reading. Possibly there had been a time in his little life when these stories had for him a passing interest. He heard them read by older children before he entered school, or, as a pupil in Grade I, he heard them read by the more advanced pupils. We may even suppose that when he labored through them himself for the first time, at the rate of one paragraph a day, they provided something upon which his soul could feed, but the time too often comes when these books become positively hateful to the child, and the teacher is by force of circumstances compelled to engage in the vain attempt to improve the style and increase the power of the child by having him read, again and again, matter, his interest in which is represented by a negative quantity. The introduction of the new Readers will to some extent improve the conditions of things, but no one set of readers, however good, contains sufficient reading matter to provide for the needs of the growing mind."

In rural schools as at present constituted, this lack of reading matter is liable to be a constant factor, but in large schools as described the library would be one of the most important features. Similarly with other matters such as botanical and natural history collections, chemical apparatus, and gymnasium equipments.

Great as would be the benefit to the children, an even greater benefit would result to the teachers. Hitherto the profession has suffered from the fact that there have been few positions of eminence which a man might expect to reach through devotion to this calling alone. Including Winnipeg teachers, and school inspectors, there are only about twenty-five positions in the profession, commanding a salary of $1,000 or over, and excluding Winnipeg and the inspectors, there are but eight such positions in the province. Hence it is that so many have used, and do use, teaching simply as a stepping stone to something else. With one Central school in a municipality we would have from seventy to one hundred schools, the principalship of each of which should command a salary of $1,000 and upwards. At the same time the total number of teachers would be decreased, and this would be done by excluding the casual and the inefficient teachers. School boards would appoint those who were likely to be permanent. The status of the profession would be raised, and the individual teacher would become more efficient.

R. S. THORNTON.

(Concluded in next issue.)

COMPOSITION.

In the story of Uncle Tom, Mrs. Stowe lays it down that cooks and generals are to be judged by the results they accomplish, and not by the methods they employ in reaching those results. We may admire Kitchener's mathematical accuracy and attention to detail now that the Soudan is ours, but Omdurman was the critical point. Kipling tells of another warrior who took the town of Lungtungpen in defiance of the received theories of war, and we admire Mulvaney none the less on that account. The case of the teacher, however, is not quite the same as that of the cook or the soldier. These can lay before us the visible, tangible and edible results of their work, which may be duly proved. It would, on the other hand, be a difficult task to arrive at any exact estimate of the results which have followed any given plan of teaching the art of composition. There are no statistics. Successful popular writers give us interesting accounts of the influences, which moulded them, and of the exercises by which they disciplined themselves. The teacher of composition in a primary school, however, is much less interested in the few who are destined for a literary career than in the great majority, who are not. Moreover, while he admits the value of "influences," he rightly argues that self-imposed discipline belongs to a later period in the individual's course. We cannot find the average man, and the successful writer has little or nothing to tell us.

If results are to be found anywhere we should expect to find them in the teacher himself. If any class can be said to be peculiarly the product of the public school system, the teachers of the elementary schools are that product. This would surely be no unfair test of the success of the work that has been done in composition. If the teachers were to enter the witness box, and give evidence on this matter, it is probable that our faith in existing methods would be somewhat shaken. I am inclined to think the evidence would go to show that our present methods of teaching tend to the development of the critical faculty rather than the reproductive or creative.

Portia says: "It is a good divine that follows his own instructions. I can easier teach twenty what were good to be done than be one of twenty to follow mine own teaching." This comes home to us all. It is true of life in general, and of the subject under discussion in particular. No right minded person would wish to speak disrespectfully of the catechism; but we are all agreed, nevertheless, that the formation of right habits is of more importance than the most complete knowledge of the contents of even that unsurpassed compendium of religious and moral truth. And yet there is a tendency, familiar to everyone, to put our trust in what we know, and save ourselves the trouble of working out our theories in practice. It is one thing to know one's Blair or Bain; it is quite another thing to give form and substance to the maxims of those excellent theorists in our actual work. It may be considered an extreme statement, but I venture to assert that there is not one teacher in ten who makes a systematic effort to improve himself in the art of composition.

We are usually contented to accept the results of the investigations of others in the domain of rhetoric, and find pleasure in tracing through the examples quoted the principles which have been discovered for us. It adds not a little to our pleasure if we can detect the rhetorician himself in the violation of one of his own principles, even in the very act of laying it down. Our critical faculty responds readily to this kind of stimulus. The occasional appearance, among the illustrative examples, of passages already known to us, tends to facilitate our acceptance of the principles under discussion, as it encourages us to believe that we really are acquainted with some of the good things of literature. We pass a creditable examination in the subject of rhetoric, and the essay we

hand in receives a high mark. It deserves a high mark. We spent a good deal of time on that essay. We did not know before hand what theme would be set by the examiner, but we knew that our essay would fit almost any theme that might be set. The examination over, we are now ready to prepare others to pass examinations. In our own training the critical side of the subject has been prominent, and the practice has been neglected. The chances are that the peculiarities of our course will be repeated in our pupils, and continued in our own after experience.

We do not seem to think it necessary to possess or to acquire skill in the art of composition. It is indeed thought necessary for the teacher of geography, history and classics assiduously to cultivate these branches. Or to take examples from fields more closely allied, we may refer to the teachers of music, of drawing, and of painting. None of these would be content with a mere knowledge of theory. But our equipment is thought to be sufficient when it consists of a more or less vague set of principles of rhetoric, clinched in a few type examples, a few maxims ready to be applied for purposes of criticism, and the recollection of our past achievements in writing school essays.

The result of all this will be what might reasonably be expected. Our pupils will do as we have done. They too, will memorize rhetorical maxims and principles, and verify them in the stock examples. They will pass examinations. And when they have left school, they will be living monuments of the truth that theory is so much easier than practice. They may be able to criticise after a fashion, but they will hardly attempt to write.

Even if it were thought desirable to continue the present state of things, and to lay stress upon the importance of knowledge of the science rather that skill in the art, we are at present hardly going the right way to accomplish that end. In order that the best results shall be attained, we must clearly realize the nature of the science of rhetoric and deal with it accordingly. If the science consists of a series of truths reached as the result of a process of inference from one or two original axiomatic truths or postulates, it will not be necessary for the prospective student to do much by way of preparation. Sufficient advancement having been made to enable him to understand the terms used in stating each proposition, his progress in the science will be easy and rapid. If, on the other hand, the truths which it teaches have been discovered by the examination and comparison of a large number of facts, it is evident that a long and careful course of preparation is necessary before the student is ready for the scientific study of the subject. It is evident that many years of preparatory work must be spent, under direction, in becoming acquainted with what has proved effective in the domain of literature, before the work of classification and explanation can be undertaken.

One cannot define with accuracy how far we are away from the kind of literary study which this method demands. A very great deal has been done in recent years by way of encouraging young children to study great literary masterpieces. All that beautiful binding, excellent paper, clear type, and moderate cost can do, is being done by the publishers, and if parents and teachers would only do their share of the great work, thousands of young people would not only undergo the necessary preparation for critical study of the laws of literary harmony and expression in their high school and college career, but would in the meantime also experience the keen delights of "that great kingdom of the ideal, where the greatest of all ages sit benignly on their thrones judging the tribes of men." We are gradually getting to believe that young children can, and do enjoy literature, which we used to think far beyond them. We thought so in the face of our own early experiences. We thought so because the study of literature in our school days was intimately associated with parsing

and the derivation of words, or, to express it more accurately, it was parsing and word-study, and nothing else. But by the study of literature we now mean something that is quite unspoiled by the pedantry of schoolmasters, the enjoyment of the free unfettered journeys in the world of beauty and brave deeds. Nowadays, when we speak of our early literary training, we very properly do not refer to what happened during such a term, under such a teacher. Our real literary education was carried on under happier auspices than the schools could then supply.

How large a part of the best in literature might be read before the Collegiate career begins, and what a delightful task it would be for the teacher of rhetoric whose class had been so prepared for their work! Such a class would indeed be ready to enter upon the field of criticism, to find a new pleasure in making a scientific study of what had been a delight to gather.

But it is not necessary, and it is not desirable to neglect either the science or the art. Both are valuable, but each in its own appointed time and place. Much can be done by parents and teachers in elementary schools by way of preparation, so that the scientific work of the high school or college teacher will be at once pleasant and effective. The point of principal importance to keep in mind is that rhetoric, as a science of criticism, belongs to the later years of school life; whereas instruction and practice in the related art of composition begins at a much earlier period.

S. E. LANG.

(Concluded in next issue.)

THE WORK OF A SCHOOL INSPECTOR.

The biggest thing in life is life itself. The best thing that can be said about a school is that it sets forth a high ideal of life. The highest qualification in an inspector is that he shall be able to judge what constitutes a high type of life, and keep this ideal before his mind in the examination of the school.

If, then I were asked to state in a word, what should guide an inspector during the few hours he spends in a school, I should not say, let him judge on the basis of knowledge, or the basis of power, or the basis of formal discipline, or the basis of methods or devices, but let the watch-word be that undefinable but most far-reaching of all words, LIFE.

But if the inspector is to judge of the life in a school, he must analyze it into its elements, or if you like it better, must examine it in some of its phases and then ask himself: How is the school before me as regards each of these elements or phases? I do not pretend to be able to make an exhaustive analysis at this point, but would simply set forth what might be considered a few of the essential points to be carefully observed in judging the character of the life in a school.

WHAT TO TEST.

First and foremost, there should be the question: 'What is the disposition or temper, or spirit of the pupils, and teacher? Does the spirit of love and faith and hope reign there? Is there reverence is there charitableness, is there peace? Is the school like a well ordered home in which the children obey without feeling obedience to be a burden, and the teachers have authority without being conscious that they rule? Does the bond of sympathy exist between pupils and teacher? Does the teacher lose himself in his pupils, or does he continually set himself up as the object of worship saying in word, look and gesture, "Behold me, here stands the great I am." Is the atmosphere of the schoolroom that of an impenetrable fog, or do we feel at times that we are living in the bright, warm sunshine? Might we compare the life to that in a murky pestilential swamp, or to

that in a fruitful upland meadow, where all life delights to manifest itself? Is it a place where we find feeling and thought ripening into action? In short, is it such a place that these little children when they grow to be men and women, can look back to it and say "Aye, it was good for us to be there, for therein were we built up into all holiness, truth and purity. Therein we learned reverence, self-knowledge and self control." This then I should say is the first point in the inspection of a school.

In the second place the habits and tastes of the pupils and teachers should be observed—habits of thought, speech and action; taste in music, literature and art. Under this heading, an inspector should note the personal habits of both teacher and pupils, their manner of walking, talking, sitting and standing. He should note the school habits such as neatness, cleanliness, order, punctuality, regularity, obedience and silence, and if at all possible he should note the habits of the play ground, to see if the instruction and practice of the school are only temporary in kind, or so far-reaching that it affects the habits of the pupils in all their relationships. He should know what is being read in and out of school, and what the teacher is doing to cultivate a taste for higher reading. He should know what is being done towards supplying the pupils with a good library, and should lend his influence towards such a worthy end. He should observe the pictures and decorations of the room, and estimate the value of these in upbuilding strong and vigorous manhood, pure and gentle womanhood. He should hear the songs that are sung, and above all should note the spirit in which they are sung, and ask himself if the effect of these on life is for good or for evil. This then is the second point that I would have an inspector observe.

In the third place I would have the inspector test the power manifested by both teachers and pupils in their work—power of feeling, power of thought, power of will. And I cannot emphasize too strongly my conviction that there is a growing tendency towards over intellectualization at the expense of the feelings and the will. "Thought" is a great word, and when pronounced "thawt" is a word to conjure with, but what we want to-day in our country, in our homes, in our legislatures, in business and in the church is not men and women with great thoughts, but with right feelings; for talk as we please about clear thinking and definite knowledge, it is not these that rule the world, but rather right feeling and pure desires. An inspector will therefore ask himself concerning a school, which he is called upon to visit: "Have the pupils learned to desire the noble, the pure and the true, and has this desire become with them a growing passion? Are they learning to choose, to will, to act? Are they growing in executive ability, growing towards self control? Are they also growing in power to think? Are they indeed learning to think at all, or are they simply going through a form and repeating words, and juggling, in one case with figures, and in another with chemicals? Is the life in the school strong and vigorous? Does a stranger standing in the presence of the teacher and the little ones, feel that here is a place where lives and power are being developed?" This then is the third point in the inspection of a school.

In the fourth place an inspection should determine in some measure not only the disposition, the habits, the tastes, and the power of the pupils, but their actual knowledge of the subjects of instruction; and here let me say that the test should be on as broad lines as possible within the limits of the time. It should not be three-quarters of an hour over number work in the primary grade, and fifteen minutes for all other subjects in all other grades. Rather should it be this: 1. Are the pupils in this school learning to know anything of the life of men in history, in literature, in art? 2. Are they learning anything of nature, the sky, the air, the earth, with all the powers and beauties which present themselves? 3. Are they acquiring knowledge of those subjects, that are the keys, as it were, to all other studies; that is, are they thoroughly grounded in the three R's? But whatever be the

nature of the test, the inspection should determine not only what the pupils do know, but how they know it, whether their knowledge consists of unrelated facts, or is truly scientific. This then is the fourth point in the inspection of a school, and for the purpose of discussion, we may leave it at this point.

HOW TO TEST.

And now, if you ask how an inspector is to determine these four points, the answer must be: 1. Let him see teacher and pupils at work in the room. 2. Let him see teacher and pupils at play during the recess. 3. Let him closely observe the buildings in which the pupils pass their time.

The two methods of seeing the work of teacher and pupils are: 1. Personal examination of classes by the inspector himself. 2. Observation of lessons as taught by the teacher. Circumstances must determine which of the two methods will be followed. I believe it necessary that there should be something of both. And not only should the work of the class during the lesson hour be noted, but their habits of work as manifested in their scribblers their exercise books and the like. As regards playground inspection, it is always possible for an inspector to see the pupils there for at least fifteen minutes, and my feeling is that the spirit of a school can be better judged on the playground than in the class room. The observation of buildings is not a mere formal duty, but a duty most binding on an inspector. It includes an inspection of the grounds, the building in all its parts—the lobby, the floor, the walls, the pupils' desks, the teacher's desk, the windows—and then perhaps more necessary still, the outbuildings.

THE INSPECTOR'S MANNER.

Let us suppose then that the foregoing indicates roughly an inspector's duty, it is not too much to insist that the manner of performing the duty is its most important part. The inspector's visit to a school should mean new life, a fresh burst of sunshine and inspiration. He should be welcomed by both teacher and pupils; he should come into the room with the air of a gentleman, and the pupils should feel that they have been in the presence of a scholar. The inspector should be an example in those points in which he judges the school. He should possess the spirit of love and sympathy, he should have right habits and refined tastes, he should be one whom teacher and pupils feel has power above the ordinary, and he should be one who has wide acquaintance with men and things. If any man in our country requires to be a pattern in holy living and refined tastes and noble disposition, it is the inspector who passes from school to school.

INSPECTOR AND THE DISTRICT.

If such an inspector visits a school and tests it according to the standard given above, his duty is by no means ended. There remains the work of private consultation with the teacher, and of reporting to the parents through the trustees. In the first case his criticism should be more largely positive than negative, and should be of the broadest kind. Very rarely will it pay to criticise methods, more particularly methods of teaching. ~~Rather let emphasis be of the critical faculty rather than school, and~~ If at all possible, a word of encouragement should be spoken both privately and in the presence of the pupils. As regards the report to the trustees, I believe that nothing pays like frankness. If the thought is that the teacher should be dismissed, then let the inspector write the trustees to this effect. If she is good enough to remain then let him make it as easy for her as possible to continue at her post.

What I have said may not appear to contain very much that will be a basis for criticism, but perhaps on second thought most of you will agree that I have given you an opportunity for expressing your views on this question. I believe that the inspection of a school very largely determines the character of the work done in it. It is true most teachers should have reached the stage of self-criticism, and should value their own opinion of themselves more than the inspector's opinion; but, fortunately, or unfortunately, all our teachers have not reached this stage, so the testing of methods in one or two branches of study, and neglects

the higher things of life, then our schools should be pitied indeed, but if it recognizes life as the highest thing in life, and if the inspectors are always as they are to-day, men whose lives are an influence for good—then we, of all people, should have occasion to rejoice.

W. A. McINTYRE.

SOLUTIONS IN ARITHMETIC.

Teachers are fairly well agreed upon the importance of the study of arithmetic in our public schools, both for its utility in the duties of life and for its disciplinary value. Its utility in the duties of life depends on accuracy and rapidity in calculation. This phase of the work has hitherto engrossed the special efforts of the teacher. Accuracy and rapidity in calculation undoubtedly have their value. What would it profit a man to reflect that he knew how to calculate the value of his load of wheat and could do it quickly, when in so doing he made a simple mistake in adding the tens column, and thus lost ten dollars? I wish however, for its disciplinary and linguistic value to plead. There is one law of growth as well for the mind as for the body —the law of exercise. If the faculty of recollection is to be strengthened, give it exercise in recalling. If the reckoning powers are to be strengthened, give them exercise in thinking logically. But how is the teacher to know when the boy is thinking logically? Is it not sufficient evidence that he has thought logically, if he has arrived at the correct result? It is not. He may have made mistakes which counterbalance each other. He may have thought confusedly and arrived at his result more by chance than by reasoning. To infer that the boy understands the question in hand and is profiting by its consideration, while his solution is expressed confusedly is unwarranted. The only safe guide to the teacher is that the pupil's solutions are expressed clearly and in logical form. The writer can well remember his own early experience in this respect. It was then very inconvenient to be asked to explain his work or to repeat the solution. Even at the present day many of the solutions one meets with in schools, would not stand criticism. One can not avoid a measure of misgiving when nothing more appears on the slate for a solution than a succession of figures. Allow me to make the meaning plainer by a solution of a problem such as the following: "If six men earned $54 in six days, what were the wages of each man a day?"

Solution—

6) $54

6) 9

$1.50. Ans.

The above is probably the solution which the writer would have presented his teacher in his early school days. Let me say that while it has the merit of brevity, it is not logical. Neither is it a full expression of the reasoning. I had learned that when one concrete number was divided by another, they must be of the same denomination and the quotient would be abstract. The solution contradicted the teaching of former lessons. But my solution was accepted and I ceased to inquire. The disciplinary value would have been much greater were the reasoning more fully expressed. Thus:

Six men earn $54 in six days. (Data)

∴ one man earns 1-6 of $54, equals $9 in six days.

∴ one man earns 1-6 of $9, equals $1.50 in one day.

∴ $1.50 was the wages of each man a day.

The latter solution would of course require more time than the former, but would profit the pupil in writing, in spelling, in punctuation, and in clearness of expression, and consequently in clearness of thought. This solution is not presented as the type solution. I am only pleading for full and clear expression in mathematical reasoning. Teachers insist on clearness of expression in geography, grammar and history. Surely mathematics are not less worthy. It does not appear that Euclid thought so.

W. ROTHWELL,

IN THE SCHOOL ROOM.

In order to stir up discussion in a practical way, the journal will contain each month an outline of a lesson as taught in the schoolroom. Criticisms are invited and expected from subscribers. The best of these, in the opinion of the editor, will be printed in the following issue of the journal. In order to indicate the line of work, the present issue gives both lesson and criticism. Criticisms of this criticism are in order for next issue. Let none be afraid.

THE LESSON.

It was a lesson in arithmetic, or if you like it better, in mensuration. The pupils had been working with the following problem, and had failed to solve it:

"Find the cost of carpeting a room thirty feet long and twenty-seven feet wide, with carpet twenty-seven inches wide, at $1.25 a yard."

The teacher undertook to help them as follows:

1. How wide is the room? Ans.—Twenty-seven feet, or nine yards.

2. How many strips of carpet could be laid down, if each strip is twenty-seven inches wide? Ans.—Twelve strips.

3. What is the length of each strip? Ans.—Thirty feet, or ten yards.

4. How many yards of carpet in all? Ans.—One hundred and twenty yards.

5. What is it worth? Ans.—$150.

The question now arises, is this the proper assistance, or if not, what assistance should be given?

THE CRITICISM.

1. Tested by time honored maxims such as, "The teacher is a good questioner," "No question should lead to the answer 'Yes or No,'" "Every question should cause the pupil to think," all of which are misleading, and contain as much error as truth—the assistance given above seems to be just what it should be. It seems to be an improvement on this for example:

Find how often twenty-seven inches is contained in twenty-seven feet.

Multiply the result by ten.

Multiply $1.25 by the result.

Yet we doubt if there are not many things to be said in favor of the latter form of assistance as compared with the former.

2. The point lies just here. The pupil in following the teacher's questions in the first case, or the teachers directions in the second case, acts simply as a calculating machine. He does a little thinking, no doubt, in the process of calculation, but it is not the thinking that solves the problem intelligently. The teacher has solved it in either case. In all problems of this kind, a true solution involves this: that the pupil sees the end from the beginning, that he takes no step, performs no calculation without knowing where it leads, without perceiving that it will definitely assist in solution. To put it in another way: a problem to be solved must first be analyzed, then when the analysis reveals the steps to be taken to arrive at solution these steps should be taken. Slightly altering the common use of terms we might say that the mental act in the solution of a problem, such as that given should be analytic synthetic act, rather than a synthesis dictated by the directions or questions of a teacher. There is nothing we can conceive of in mathematical teaching more deadening than this juggling with figures in the hope that after a few multiplications and divisions something will turn up. The pupil had no right to find how often twenty-seven inches was contained in twenty-seven feet, or in other words, how many strips it would take to cover the floor, unless he first saw that this information was directly necessary to the solution of the problem. The same may be said of the assistance in the other steps. Every step that a pupil takes should be a step which he knows before hand will help him to a solution. There should be no jumping in the dark, but a conscious struggle towards the light. And, by way of digression, it may be said that all the true science work is of this same nature; though much so-called science is but juggling with chemicals in response to the directions of a teacher or a text book. The es-

sence of scientific method is always the same—a pupil faces a problem; he analyzes it, in order to see how he must solve it; then he takes in order the steps that he knows will assist him. If anyone doubts this, let him read in Pott's Euclid, the notes to Prop. X, Boox IV. The essential act in solution is an act of analysis. Now let us see what form of assistance should be given.

PROPER ASSISTANCE.

1. The pupils, if they have not had a series of questions of the following kind, might have them now, in order to develop the idea of the dependence of a variable quantity upon one or more variable or constant quantities. Such questions are suggested below:

(a) If you know what an apple is worth as well as the number of apples in a paper bag, what other fact can you determine? If you know the value of all the apples, and the value of one of them, what can you determine? What two facts should you know in order to find the cost of an apple?

(b) A man, his salary every day, his salary every month. Show, how, if you know any two of these, you may find the other.

(c) The work of two men is equal to the work of three boys. If you know a boy's wages for a week, what else can you determine. If you know the wages of a man and a boy together for a day, can you determine the wages of either one?

2. If this work, that is work of this nature, is understood, the problem of carpeting, with which we began, is simple. The following questions will be in order:

(a) What do you wish to ascertain? Ans.—The cost of the carpet.

(b) On what two facts will this depend? Ans.—The number of yards, and the cost per yard.

(c) Do you know both of these facts? Ans.—Only one of them.

(') How could you find the other fact? Ans.—By seeing how many yards of carpet it would take to to cover the floor.

(e) How is this to be seen? Ans.—By laying the carpet in strips; counting the strips, and the number of yards in a strip.

(f) Can you find the number of strips? Ans.—It depends on the width of the room and the width of a strip, both of which are known.

(g) Can you find the length of a strip? Ans.—It is the length of the room, which is known.

(h) Outline the steps you will now take in order to solve the problem. Ans.—Find the number of strips and length of a strip; this will give us the number of yards; which joined to the cost per yard, will give the cost of the carpet.

W. A. McINTYRE.

A PHASE OF NATURE STUDY.

In teaching a subject, the method is determined by the aim. We may teach the child a mass of facts regarding the modifications of growth, the relations and function of the parts as a basis of classification into family, genus, and species; or we may tax the memory with a list of technical terms almost meaningless to the pupil, and all may be well from the standpoint of botany, but the greater part of the work will be of little practical benefit to our public school children. And yet this method is too frequently followed by teachers. We may teach the plant so as to cultivate the child's observation, to reveal some of nature's laws, to create an appreciation of the unity in nature and, as a result, to strengthen the practical and moral elements of his being. We aim to reach the character of the child through the agency of nature. This should be the standpoint of nature study.

In the study of weeds we should examine the plants themselves as they occur in nature. This phase of the work can be done best when the weeds are beginning to flower, and the range of work shoul dbe limited to those weeds which are peculiar to our own country. The pupil should first observe closely, that he may recognize; afterwards he may examine the struc-

ture as to its suitability to the life purpose of the plant.

If we observe the method of growth, we see how admirably the structure of these weeds lends itself to the dissemination of their seeds and to the propogation of their kind. The tumble weed by reason of its general spherical shape, is rolled hither and thither scattering seeds along its course; the numerous winged seeds of the French weed are blown in all directions and the root stocks of the couch grass branch again and again until we have a regular network of food-robbing and commercially useless growth.

Plant life demands food. A great portion of this comes from the soil, from which source the weeds will obtain their food supply, but will not return the nourishment taken away. In time the weeds will exhaust the soil and the land will lose its productivity, and depreciate in value. If our grain fields are infested with weeds, our grain yield cannot be the best. These weeds occupy space where grain might grow, they also deprive the grain crop of some of its necessary nourishment, thus decreasing the quantity and the quality of our harvest, and consequently diminishing in dollars and cents the worth of our grain. In some instances the weed by its unpleasant odor will drive cattle from otherwise good grazing lands. Soil, grain and stock suffer from weed growth.

We naturally ask, what shall we do with these weeds? The only answer is, "destroy them." We found some of these plants were propagated by seeds —we must destroy the plant before the seeds ripen; other weeds multiply by means of their roots, and here the plant should be killed by depriving the roots of their nourishment.

We reap what we sow, and if the weeds are mixed with the grain we sow, we shall surely reap a mixed growth of grain and weed. If we are to have good grain we must sow good seed free from weeds. Though the seed may be good, care must be taken that while the crop is growing weeds must not occupy the same field. The land as well as the seed should be free from weeds. Nor is it sufficient that our own seed grain and our own farm lands are clean, but the neighboring fields, the vacant lands and fire guards should be kept in the same condition.

How many teachers will preach about the evil results from weed growth, and yet passively allow weeds to grow and ripen in the school grounds and along the school fence!

Let us apply this practical teaching to the moral training. Our lives are grain fields, and the value of our life is in the quality and quantity of our character which is determined by our habits—good or bad. The bad habits are the weeds of our lives. As in the weed, a single plant seemed harmless enough, but on that account was not to be ignored—it was capable of great injury; so in our lives. The bad habit at first is apparently harmless and innocent, yet easily cured, but if neglected, it grows rapidly until it soon forms a part of one's self, and only with difficulty can it be eradicated. In many cases our habits prove to be our masters. These habits injure the quality of our influence for good. Not only is the individual the worse for his bad habit, but its effect is harmful to all those with whom he may come in contact.

It is an easy step to go from the plant weed to the habit weed. We have warrant for such a step from the lessons taught by the Great Teacher in his parable of the sower and of the tares. If Christ did adopt such a method, surely the average teacher need not feel ashamed to follow His plan.

By carefully taught lessons will not the child feels more impulsion to sow good grain in the form of good deeds and to destroy the weeds of life by warring against evil habits than by any code of school ethics enforced by "thou shalt," and "thou shalt not."

F. E. PERRET.

"Mamma, when you're away from home, an' want to go back awfully, that's bein' homesick, ain't it?"

"Yes dear."

"What is it when a feller's sick of stayin' at home an' wants to go fishin'?"

* * *

"What is the best insulator?" asked the professor of Physics. 'Poverty."

THE STUDY OF BIRDS.

Nature study has a place on our programme of studies for public schools and its right to be there is so generally recognized, and its position is so assured that no general defence of it is necessary; but, hitherto, in the schools that have come under my notice, nature study has been interpreted to mean plant study. Plant study is certainly very interesting and profitable, but it is not all of nature study. There are many lines of work that are just as interesting and just as profitable. I would like to draw the attention of teachers to one line of work that is worthy of more than passing notice. I refer to the study of birds. Whether looked at from the scientific the economic or esthetic standpoint, our birds afford as many opportunities for interesting work as our plants.

Situated in the northern part of the temperate zone possessing so varied a surface, and such extremes of climate Manitoba is the summer home of many birds from the far south and the winter stopping place of many from the far north. Wooded hill country, upland prairie, low meadow land, river valley, and lake margin, has each its tenants, the abundance and variety of bird life everywhere obtrudes itself upon our notice. Lying as we do in the centre of one of the great continental highways of migration, along the valleys of the Mississippi and the Red rivers, we have many transient visitors for a few days in the spring as they pass north to nesting grounds within the Arctic circle, and, again, for a few days in the autumn as they pass south to the tropics The bird lover has unlimited opportunities to pursue his favorite study and the scientific ornithologist has a virgin field.

From what point of view shall the school take up this work, and what can the school do to develop an intelligent interest in the bird life of the district? The thought is not to turn out ornithologists any more than the study of plants is to make children botanists. The aim is rather to direct the natural interest all children have in birds so as to awaken an affection for them that shall prevent the practice of many cruelties now common through ignorance or thoughtlessness, and that shall clear away error and superstition, and let in truth and sense.

This can be done by helping the children to understand the beauty and and mystery of bird life, by studying with them bird dispositions and temperaments (so like our own), by learning how they migrate, how they set up housekeeping, how they raise their families, how they work, how they play; in short by studying the live birds, not the dead ones.

No greater equipment is needed for this work than for the study of botany. A pair of sharp eyes, supplemented if possible by an opera or field glass a good manual (Chapman's Birds of Eastern North America, Appleton & Co. $3) a note book and a lead pencil, the whole vitalized by an eager curiosity and a loving interest in the work.

Farms of general distribution will be found in every district, but many districts will in addition have farms more or less local. On the prairies at this time of year may be seen flocks of snow birds "like brown leaves whirling by" or a band of pleasant chatty redpolls, or a solitary owl wandering like a lost spirit over the snowy expanse. In the woods the tap tapping of the downy and hairy woodpeckers sounds peculiarly loud in the winter stillness. The nuthatch, head downwards on the tree trunk, pauses an instant in his search for eggs and larvae, to give you a passing glance. He has not time for man, his business is too pressing. The little fellow harmonizes so well with his surroundings, that he would be invisible were it not for his restless movements and the white gleam of his breast against the dark background as he raises his head to look at you. In that maple grove is feeding a flock of evening grosbeaks clothed in yellow, olive brown, white, and black, near by may be seen a flock of their sprightlier cousins, the pine grosbeak in slaty gray and rose red. Further on a gentle chattering

draws your attention to some waxwings in the poplars, those refined aristocrats of the northern woods. Glimpses of these and others will well repay a walk along winter roads.

As the winter passes into spring the lengthening days and warm sun bring home the first of the sparrows, the juncoes, and the horned larks, our only true lark. These are the forerunners of the hosts that are to follow through April and May. Some to make their home among us, and some only to call.

By watching the birds as they come, by listening to their songs, by learning to identify them, by watching their nesting habits from the merry courting season to the laborious feeding of the young family, we became acquainted with them. As our intimacy increases we find that each bird has an individuality of its own. To the uninitiated a sparrow is a sparrow, and all sparrows are alike, but the interested observer knows better. All sparrows are built upon the same anatomical plan, are about the same size, and are dressed alike, but there the similarity ceases. The Divine Intelligence has given to each its own disposition, and temperment, which makes it different from every other.

The birds in this way will become friends for whom we will look as we go about our work. The honest bustling robin with his love for our neighborhood, and his cheery morning call from the tree top will appeal to our affections. The more retiring meadow lark will not invite intimacy. The ecstatic melody of the bob-o-link will be the voice of the great singer from foreign parts, whose singing thrills us, but with whose personality we are unacquainted. Though after all this is the bob-o-link's home, and it is the sight of his demure little mate in the grass beneath him that prompts that fervent burst of music. The merry chirping sparrow, the nervously impatient wren that dismisses us with a flirt of her tail and a hurried gush of song as she disappears in the brush pile. The sly, audacious catbird whose bright eye sizes us up from the roadside bushes, the solitary pugnacious kingbird, the morose dark minded shrike the profanity loving jay. Mark Twain says the profanity of a jay is as insulting and as indecent as that of a cat, but that the jay uses better grammar.

The study should lead to a much better understanding of the debt we owe the birds. The sparrows and all the finch tribe are seed eaters and live almost exclusively on the seeds of weeds. The robins, meadow larks, thrushes and their friends are grub eaters, and spend the long summer day from dawn until dark satisfying the appetites of themselves and families. No sinecure as one who undertook to raise a nest of robins by hand can testify. Hawks scour the prairies for mice and gophers. Owls choose the soft hours of the twilight to steal upon the too venture one rabbit. The vireos and the warblers stand guard over the treetops to protect the leaves and branches the woodpeckers, nuthatches and creepers look after the tree trunks, while the thrushes and robins take care of the ground beneath. If there were space a good word might be said even for the blackbird and the crow.

The subject is inexhaustible. It grows on one. There is much excellent bird literature that should find a place in all school libraries. Such writers as Florence Merriam, Mabel Osgoode Wright, Olive Thorne Miller, Bradford Torrey, John Burroughs, Maurice Thompson and our own Ernest Thompson, give the correct spirit to this work and teach how to hunt birds with a pair of sharp eyes and an opera glass in lieu of a gun.

T. M. MAGUIRE.

In thine own circumference as in that of the earth, let the rational horizon be larger than the sensible, and the circle of reason that of sense; let the divine part be upward and the region of the beast below; otherwise it is but to live invertedly, and with thy head unto the heels of thy antipodes.—Browne.

The true victories, the only ones which we need never lament, are those won over the dominion of ignorance.

The employment most honorable and most profitable to the people is to labor for the diffusion and extension of the ideas of men.—Napoleon.

THE TROUBLESOME BOY.

The Kansas Society for Child Study which met in December, took for its topic The Troublesome Child in School and from the proceedings published in the February Child Study Monthly, we have culled the following as worthy of the thoughtful consideration of all teachers:

PRINCIPAL MYERS.

The bad boy is a much abused member of the human family. On him falls the blame of every mischievous happening in the household and school. Without trial by jury he is imprisoned in the dark closet, banished from the society of his mates, or, perchance made to suffer severe bodily punishment. Yet he is in embryo, the brain-power of our great institutions the vital force and energy which will keep the wheels of commerce moving in the coming generation.

Not a few parents may ask: "Why do you offer a tribute to bad boys?" Our definitions of a bad boy will widely differ. I take off my hat to the unfortunate lad because I know he is not alone responsible for his badness. My inability to avert the bad and discover the good makes me indeed sad.

I have no remedy to offer. I believe bad boys are a necessary evil. I am not looking forward to the time when we shall have no bad boys. We will have fewer bad boys when we know them. We cannot know them and at the same time stand aloof from them. We can certainly influence and control our boys by knowing their controlling influences and commending the good in them.

I think we do not have a bad boy in every schoolroom. We will, however meet them. I believe it is often well to feign ignorance of their past record. True, our boys will not all prepare their lessons with the same degree of excellence. Their aspirations widely differ. Discover, if you are able something that interests him, He will be an expert in doing that. Let him help you, He always enjoys that.

"Cheerily then my coming man
Live and laugh as boys can."

SUPERINTENDENT HULL.

The investigations which constitute the basis of this paper, were undertaken with the original intention of making a study of the troublesome child without regard to sex, It soon became apparent, however, that the troublesome child is as a general rule a boy. The troublesome girl has been met with, but she is in such a hopeless minority and her misdeeds are so peculiarly her own, that it seemed best to consider only the troublesome boy.

The investigation has been made along the three lines suggested by the following questions: (a) What does he do? (b) Why does he do it? (c) Could he do otherwise? The material has been gathered from two sources: (a) The written answers of thirty teachers in eight cities of the second class in Kansas. In October last a request inclosing blank for answers, was mailed to about fifty teachers in city schools including principals and superintendents. The reports received, though brief, evidenced careful and thoughtful preparation, each comprising the results of the study of a particularly troublesome child.

While these reports have materially aided me in my Child-Study work, the study and investigation necessary in their preparation has doubtless been helpful to these teachers themselves. Indeed very gratifying words were received from some of them, testifying to the benefits received in this way. (b) The cases of discipline that have come up in my regular duties as superintendent. Though not very numerous, these have furnished good opportunities for a study of these questions. Since the opening day of our schools the three questions What does he do? Why does he do so? Could he do otherwise? have been constantly in my mind, and in every case of discipline, failure in work and complaint of of parent, with which I have had to deal, my aim has been to seek for correct answers to these questions. My custom has been to find out all I could from a friendly talk with the pupil in question, and by drawing him out in as many ways as possible to learn what I could from him about his for-

mer teachers; to question his present teacher closely in order to determine the extent of her knowledge and understanding of the pupil, and perhaps suggest to her certain investigations that she might make with profit. This plan starts the teacher to studying the child and enables her to help herself in this and other cases. The results have been very satisfactory, usually the deportment of the pupil has improved, his interest in his studies has been increased, and whipping and other severe punishments have almost been eliminated.

The troublesome boy is to be found in all grades, including the high school but the most complete and interesting type varies in age from twelve to fourteen. A compilation from the thirty reports before referred to, shows that he is an active urchin, if we are to judge by the number and variety of his doings. What does he do? He does about everything he ought not to do, and leaves undone about everything he ought to do. He whispers, he talks, he studies aloud, he mumbles; he turns round in his seat, he twists, he wriggles, he squirms, he fidgets, and is a stranger to bodily repose; he twirls his pencil, rattles his ink well, rustles his paper and makes unnecessary noise; he plays with his knife, drops his book, rolls marbles across the floor, throws paper wads; he always wants something, forgets where his lesson is, is either too slow or too quick in response to commands: he takes pleasure in vexing and thwarting the teacher, runs away from school, longs to be out doors to wander at will; he attracts the attention of others, annoys them and leads them into mischief; he sits in an awkward position, leans against the wall, shifts from one foot to the other, is shambling in his gait; he is thoughtless neglects his lessons, is inattentive in recitation, is saucy and impudent, and usually a "smart Aleck;" he does the thousand and one little things that disturb the school, annoy and irritate the teacher, and is in general a "thorn in the flesh."

Why does he do so? The common answer given in the thirty reports, is the lack of self control. In his heart the boy really desires to do better; he promises to mend his ways, and perhaps really tries to improve his conduct, but being untrained in exercising restraint upon self, he sooner or later gives way to the impulse or desire of the moment and his efforts to be good come to naught. The second most common reason assigned is nervousness, the third laxness of parental discipline, and the fourth inherent depravity. Other causes mentioned by two or more, are "use of tobacco," "pupil thoroughly hardened" has been advanced too rapidly," "evil companions," "crowded schools," "environment," "think it smart to be bad," "viciousness," "does not distinguish right from wrong." But very few ascribe the boy's troublesomeness to deliberate, wilful, unmitigable meanness.

The observations made in my own investigations verify in a large measure the correctness of the reasons assigned in the reports. However, the following modifications and additions seem warranted. Nervousness is overestimated as a reason for restlessness. I am aware that the nervous child suffers much from being misunderstood, and even abused in the average school, and I agree that next to the troublesome child the nervous child has the greatest claim upon the teachers attention and study.

Nervousness doubtless tends toward restlessness, but they are by no means identical, nor are they, to any great extent necessarily coexistent. Nervous children are generally bright, sensitive of keen perception, easily interested, and are hard workers in whatever they undertake. Many of the most restless children, those that squirm and twist and wriggle and fidget have nerves of iron. They are surcharged with vivacity and activity, both mental and physical, and prance and caper like young colts confined in a lot. Not infrequently restlessness has been found to be due to muscular weakness and lack of muscular control.

There can be but little doubt that a lack of self control is one of the fundamental reasons for the existence of the troublesome boy, but I am less certain that inherited depravity is so great a factor as it is claimed to be. It is an open question whether the

child inherits the characteristics of the parent to any marked degree. At most, only innate tendencies are transmitted from the parent to the child. The development of these inborn tendencies into fixed habits of character is chargeable to home influence and environment, including influence of companions, and what may be known as 'street education." In our towns and cities, the boy's ideals are formed largely through street influence and street companions, and ideals thus formed, even when not positively bad, are far below those of the school and home. Among these influences must be included low and contaminating thought and the nefarious habit of cigarette smoking.

Could he do otherwise? This question is of the greatest importance; here culminates the practical value of these investigations.

Two considerations are involved: (a) Is the boy voluntarily and wittingly troublesome, or is his conduct the result of influences and forces beyond his control? (b) Can the school supply conditions and apply forces that will enable him to do otherwise? As to first consideration my experience covering a number of years, and my study of specific cases, lead me to the conclusion that the troublesome child could not do otherwise under the existing conditions and with a continuance of the forces, internal and external, by which his life is influenced; his doings are not erratic, wilful and without reason; they are the resultant of the forces which dominate his life. Abundant reason can be found, either in the child or his environment, in school and out, for every one of his multitudinous misdeeds. In almost every case that I have investigated, or that has been investigated at my suggestion, the child has been found doing only what might be reasonably expected under existing conditions. In every such case, an intelligent seeking out of the underlying causes has proven more efficient than a blind battling with resulting evils. "An ounce of prevention is worth a pound of cure," particularly when the cure does not strike at the root of the disease.

The troublesome boy cannot help being troublesome, but his teachers can and ought to help him to get over being troublesome.

It will be necessary to stir into life and activity the latent forces of the soul, to exalt the boy's idea of importance of school and the value of education, to give his school life purpose and aim, to counteract the noxious influence of environment, to tone up his mental powers, and to develop his will power.

These are grave and responsible duties, but the teacher must meet them. The mere recognition of such things as among the possibilities gives the teacher broader sympathy and enlarges his stock of patience and makes him keener in insight and more fertile in resources. He learns to recognize justice as well as expediency in allowing the abnormally restless boy a reasonable degree of freedom. In time he may even discover that in a skilfully managed school, freedom is not incompatible with good order. School life is at best artifical, and there must needs be a generous amount of common sense and human sympathy which recognizes the rights, the comfort and even the frailties of children.

The case of a boy of eleven in my school will serve as an example in this connection; he is neglected at home and as a consequence spends much of his time "down town," he is the best errand boy in town, and attends all the shows, being engaged to sell gum and popcorn on such occasions; his active and restless nature and his habits of unrestrained freedom make the conventional school room seem a veritable prison house to him. At first his teacher found it impossible to keep him in order and get him to study, and finally came to me for help; a better understanding of that boy and of the cause of his restlessness and lack of studiousness, enabled the teacher to observe his actions from another view point. Our sympathies were enlisted in his behalf, and this, together with the manifestation of interest in out of school enterprises, gained an influence over him which was easily utilized in leading him to try to please rather than tease his teacher, and to find interest in his studies.

When a teacher realizes that his trouble with a particular boy is due to the boy's lack of self-control, a long stride has been taken in the direction of helping that boy to better relations with the school.

If the boy is deficient in self control his teacher ought not be surprised that the boy's actions are uncontrolled; that he is led by his impulses and gives way to the desires of the moment with little thought of the consequences. Nor can the boy be expected, within himself, to cultivate self control; he must be guided and helped, the teacher must lend him self control; he must be guided and helped, him in the exercise of his own will, until the power and habit has been developed in him.

No more important duty devolves upon the teacher than will culture, both on account of its value as an element of education, and on account of its helpfulness in school discipline.

TEACHERS' ASSOCIATION OF N. W. MANITOBA.

At a meeting of the teachers held in the public hall of the Birtle public school, on June 28th, 1895, was first conceived the idea of a teachers' association for the northwestern part of the province.

While recognizing the effective work that had been done for some years previous by the Western Teachers' Association meeting from year to year at Brandon, it was felt, that situated as we are in the Northwest and cut off practically from reaching Brandon by rail, a large number of teachers were debarred from the great and far-reaching benefits accruing from such an institution as the Western was.

At the same time it was felt that there was a sufficiently large number of enthusiastic teachers in this part, to form a good working and strong association.

That the movers in this effort did not misjudge the facts has been amply evidenced in the working of the Northwestern Teachers' Association of Manitoba, during the past four years. The motto worked upon has been "Union is Strength," and such it has proved to be in this case.

In organized effort, in the interchange of ideas at institutes and conventions, in social intercourse, and in the benefits derived from its library, the association has undoubtedly filled, and is filling a worthy mission.

At the meeting referred to, the following resolution was passed: "That we, the teachers of northwestern Manitoba, in convention assembled, form ourselves into an association to be known as the Northwestern Teachers' Association. Our object shall be the advancement of the interests of the profession of teaching, and the promotion of the cause of popular education in Manitoba." From this resolution, the crystallized thought of its promoters, the institution took its rise.

Any person regularly engaged in the work of teaching in any school in Manitoba, may, upon payment of the annual subscription, 50 cents, have the right to become a member. The territory tributary to the association is divided into four districts, and each of these districts must be represented by at least two officers in the executive committee. The officers consist of a president, vice-president, secretary-treasurer, six councillors; and the executive is made up of these officers and the association's representative on the provincial association. The executive committee has the general management of the affairs of the association.

A good library has been purchased from the funds, and is at the disposal of the members, those at a distance being supplied by mail on the payment of postage. Thus some of the great disadvantages a large number of teachers on low salaries labor under is in a measure mitigated.

Teachers' institutes are held on the different Saturday's of each

month under the association's auspices, at Shoal Lake, Beulah, Birtle, and Russell, each institute being under the charge of one of the officers of the association in the particular district in which the institute is held. These institutes have been well attended, and have been the means of keeping fresh the interest in association work, and the work of the profession in general.

From its inception, the association has had the remarkably good fortune to be controlled and directed by officers who were thoroughly enthusiastic, and noted for their executive ability. These positions have at all times been filled, not through favoritism, but by man and women, who in or out of office showed that they had the interests of the profession at heart. In this lies the secret of the success of the institution.

No trouble has ever been experienced by the executive in preparing a programme for a convention, all being willing to take their part and do their share towards making each convention a success.

The association has always had the satisfaction of being on a sound financial basis, and the report of the treasurer has shown at each convention a good substantial balance on hand. The executive was able to secure the services of Mrs. (Colonel) Parker, a year ago, as an attraction and the teachers showed their appreciation of the action of the executive by turning out in large numbers and coming handsomely to their support in the matter of expense.

At the convention this year, an interesting and successful exhibit of school work was made, consisting of copy books, practice books, pressed wild flowers, dried grasses, compositions and maps. Prizes were offered for the best exhibits in each class The botanical and etomological work being done in these parts was seen in the very large and excellent display of flowers, grasses, moths and butterflies from the Birtle school, under Principal Jones.

The greatest harmony has always prevailed throughout the membership, and loyalty to the association is one of the cardinal virtues of its members.

M. H. Jones has been the secretary-treasurer and librarian ever since organization, and Mr. E. Hayes of Mountjoy, S. D., one of the founders, has ever since held a position on the executive. Mr. Dorset, of Binscarth; Mr. Heasman, of Beulah; Mr. Newcombe, of Shoal Lake; Miss Thorn, of Russell; Miss M. Boddy, B.A., of Fort Ellice; and Miss Douglas, of Landsburn, S. D., have done yeoman service in the association, and have been its mainstay throughout its career of nearly five years.

Many others from year to year have lent a helping hand, and the prospects of the association were never brighter than at the present. The present executive committee is:

President—A. Emmes, Shoal Lake.

Vice-president—A. Dorset, Binscarth.

Secretary-treasurer and librarian—M. H. Jones.

Councillors—R. Brown, B.A., Russell; E. Hayes, Solsgirth; H. Heasman, Beulah; T. Peden, Shoal Lake; T. A. Glass, Wattsview; C. K. Newcombe, Shoal Lake, association representatives on the provincial association.

M. H. JONES.

The appropriate and attainable ends of a good education are the possession of gentle and kindly sympathies; the sense of self respect and the respect of fellow men; the free exercise of the intellectual faculties; the gratification of a curiosity that grows by what it feeds on," and yet finds food forever; the power of regulating the habits and the business life, so as to extract the greatest possible portion of comfort out of small means, the refining and tranquillizing enjoyment of the beautiful, in nature and art, and the kindred perception of the beauty and nobility of virtue; the strengthening consciousness of duty fulfilled; and, to crown all, "the peace which passeth all understanding."—Sarah Austin.

* * *

It is a shame not to have been educated; for he who has received an education differs from him who has not as the living does from the dead. —Aristotle.

INSPECTION NOTES.

The multiplication table, that time honored substitute for thinking in arithmetic, is fast going the way of other ingenious and plausible devices for circumventing thought. There was a time when the power to declaim the multiplication table both forward and backward without an error, was unquestioningly accepted as evidence of progress in the study of arithmetic, as evidence of power to think in numbers. To require a child to commit to memory a mass of words expressing mathematical facts which had not been thought out, and hence to him were not facts, was to attempt to reduce the mind to the level of a mechanical contrivance, which, when wound up and set in motion by the teacher, was warranted to grind out with machine-like accuracy the arithmetical truths from one times one to twelve times twelve.

There are many teachers, however, who, while admitting the absurdity of teaching the multiplication table by rote, still hold that after the facts of number have been discovered by the pupil in the rational way, these facts should be arranged in the systematic order of a table, and committed carefully to memory for future use.

The proposition that this systematic memorizing of the discovered truths of number is necessary or advisable depends upon two other propositions, neither of which can be successfully defended. The first proposition must affirm that in the study of arithmetic there is a strong element of forgetfulness, so strong, that learners are presumed to be going on from day to day learning new truths, and forgetting old ones.

The second proposition must affirm that in the case of a learner, having occasion to make use of some fact of number which he has previously known, but has for the moment forgotten, the proper procedure in reaching that fact is by an effort of arbitrary memory, rather than by an exercise of the thought power.

Let us briefly consider the validity of the first of these two propositions. In the rational study of the numbers from one to ten, the analysis of each new number involves, in addition to the discovery of the new relations of that number, a constant review of old relations, so that in the discovery of new truth the old truth so far from being forgotten, is made clearer. Having mastered the first ten numbers, the learner is in a position to attack the problem of twenty, as the simplest group of tens.

It will be readily seen that each step in the analysis of twenty, as a group of tens, involves a review of ten, and this is true of any possible combination of tens. To illustrate: A child to whom twenty has been presented as a group of tens, wishes to think twenty into nines. He first thinks it into tens, then each ten into nines, and re-combines. His power to measure twenty by nines is incontrovertible evidence of his power to measure ten by nines. Or suppose his problem is the thinking of nine ones away from twenty, or two tens. He must think nine ones away from one ten, and hence must review ten.

It is quite true that children frequently do lose their grip of numerical truths. Learners have been found able to answer questions on ten with great fluency, who had forgotten the truths of seven. There is nothing in the nature of the subject or in the nature of the mind which explains this phenomenon. The teacher in the case referred to, stated that he had not reviewed seven for some time. This explanation was hardly satisfactory. The real reason lay in the fact that he was teaching, or trying to teach arithmetic by an irrational method —a method which did not adequately provide for the use of old truth on the discovery of new. No stronger proof could possibly exist that pupils are studying number rationally than the fact that in going on to the mastery of the complex they still retain a firm grip upon the simple. This is the crucial test of the teacher's work.

Let us now consider the second proposition, namely, that which desig-

nates memory as the court of appeal, rather than reason. Let us illustrate by a concrete example. A pupil is face to face with the problem seven nines are, how many? He had previously known as the result of an analysis of sixty-three, that it was made up of seven nines, but he has for the moment forgotten that fact. Two ways are open to him. There is the broad, well beaten track of arbitrary memory which leadeth to destruction, and there is the narrow, somewhat unfrequented path marked out by thought which leadeth to pure truth. Here surely, if ever, is a case where he should make a call upon the carefully stored up treasures of the multiplication table. He may begin at seven times one, and by an arbitrary association of sounds climb to the special arbitrary sounds which represent (not necessarily to him) the solution of the problem. Or he may turn up the page in the arithmetic, which gives the information; or to the back cover of the school scribbler, which very frequently to the great detriment of clear thinking., contains the looked for information: or he may ask the boy in the next seat—anything to avoid thought. If there is a germ of truth in the statement that "arithmetic is a thought study," the learner should not follow the line indicated, but should attack the problem as it stands and think it out. One method may be indicated. The complex which he has to analyze is a group of seven nines. If he has been trained to think by tens, which he must do if he is to adopt our decimal system, he will proceed to think the group of seven nines into tens. Having mentally broken one of the nines into ones he finds that after raising each of the six remaining nines to a ten he still has three ones remaining. He is now in a position to express the problem in the terminology of the decimal system, and he has reached that position not by an appeal to arbitrary memory, but by an exercise of the thought power.

Considerable uncertainty and not a little discontent have existed for some time among teachers and students regarding the subject of grammar. This condition has been in a measure due to a widespread difference of opinion regarding the relation between the subject and the text book. A large and influential majority, apparently take the ground that the student takes up the study of this subject in order that he may be able to quote and expound the facts and definitions contained in the text book, which happens to be prescribed by the Advisory Board. The essence of this school of philosophy is contained in the injunction, "Stick to the Text book." Others—an insignificant minority—hold that the text book is studied merely as an aid to the clear understanding of the subject.

There are signs of an early break-up in this, "the winter of our discontent." Though the past is full of pain and the present of doubt, the future is not without hope. We have emerged from the "penumbra of orthodoxy" and are beginning to doubt the inspiration of the text book. Some go so far as to say that the soul does not grow and wax strong by swallowing at great gulps the results of another's thinking.

Grammar is like botany, mainly an inductive science, and should be studied very much in the same way. Whatever knowledge a student acquires of this important subject—a subject which lies at the very threshold of logic —should be acquired as the result of examination and comparison of thought forms, rather than by the blind acceptance of the results of the mental operations of the author of the work, and the knowledge obtained is by the way the least important part of the product. It is of little account when compared with the power resulting from the exercise in logical classification, and division, and "that rare mental accomplishment, the power of accurate definition."

The concensus of opinion among teachers is highly favorable to the New Victorian Readers. The work of the editors has been faithfully and fearlessly done. They have not had fore their eyes the fear of that fossilized remnant of the Gradgrind school

of philosophy, who hold that the imagination of a child should be carefully suppressed. They have given us nursery rhyme, and fairy tale, and myth in abundance—real literature. But if the new readers have been warmly received by the teachers, they have met with an ovation from the children—the starved souls that have been feeding on husks, and hungering for the bread of life.

The improvement in the reading notably in schools not supplied with supplementary reading matter, is very marked, and is strong evidence in support of the proposition that text books in reading should be changed occasionally. Let us hope that the new Victorian Readers may prove the leaven which shall leaven the lump, and the newly awakened interest in good literature which is so manifest in the children, may extend to parents and school boards, until the home and the school shall be amply supplied with the kind of literature upon which souls flourish.

A. S. ROSE.

HOW TO MAKE MEN.

An interesting review of the character of national educational systems, and their influence upon national life is to be found in Book I of Edmond Demolin's volume entitled, "Anglo-Saxon Superiority: to what it is due." He begins the work as follows :

"Even from the school does the contrast between England and the other western nations begin to show vividly. This contrast is striking, and enables us to perceive from its birth, the fundamental causes of Anglo-Saxon superiority.

Every nation organizes education in its own image, in view of its customs and habits; education, in its turn, reacting on the social state.

Our first three studies of education in France, in Germany, and in England, will help us to realize this.

The fourth study determines the nature of the actual social evolution, and points how we ought to bring up our children in order to raise them to the level of the new condition of the world."

In the first three studies he compares the French, German and English systems of education, and points out the superiorit1 of the training given by the English schools. In the fourth study he outlines an ideal education based mainly on the English system. The chief points which he emphasizes are briefly summed up in the following extracts:

Well, what course do these people follow in regard to their children?

This is what they do:

1st Process.—They do not consider that their children belong to them, nor that they are a mere continuation or survival, as it were, of themselves. They consider, on the contrary, that they are beings who presently will have to be independent of them. Hence they have no greater anxiety than to hasten their emancipation (since they must be emancipated) under the best possible conditions. They aim at nothing else; that is the form assumed by their parental devotion.

2nd. Process.—Among these peoples, parents treat their children from the very beginning, and even after, as grown-up persons, as separate personalities. By this they make them responsible, original personalities. Treat people as of some value, and they will endeavor to acquire that value. We on the contrary, treat our children as children, not only while they are children, but also after they have grown to a ripe age; we cannot drop the habit of treating them as children, because they are our children!

3rd. Process.—Among them, parents educate their children in view of future necessities; not up to the past, but up to date, up to the future. They do not propose their own past careers, and environments as models to their children. We act as did those French noblemen, of the last century, who, at the beginning of this century still brought up their children as if for the olden time, for

their former rank, their vanished fortune, the Court—for vain memories, for ghosts of memories.

4th. Process.—Among them, parents study most carefully the health (so do we—but we often sacrifice it to studies, examinations, enforced dwelling in cities, and what not?); they also endeavor to increase, as much as possible, the strength, energy, and physical development of their children. And they are not so foolish as to attempt to promote vigor by an over-training in physical exercises which would weaken the body; they go in for no gymnastic feats: their comprehension of the normal conditions of physical life is remarkable.

You are aware that an attempt is actually being made here to import English sports and games, and substitute them for our detestable regulation gymnastics, one addition amongst others to our pedagogic methods into which there enters no interesting or spontaneous element.

5th. Process.—Among them, the children are very early initiated into the practice of material, everyday acts: thus there is no hesitation in letting them go about by themselves, trusting them with certain affairs, or commissions within—and sometimes purposely beyond—their capacity. This sort of thing astonishes a Frenchman on a visit to England or America. English people, in their turn, are astonished at our astonishments—so natural is the thing to them, so essential a point in that system of education whose aim it is to turn out men and not mere scholars or officials.

6th Process.—Among them, as a rule parents have their boys taught some manual trade. Indeed, they feel none of that superb disdain which we entertain for manual work. They have long ago shaken off that old prejudice which to us has been more disastrous than a hundred defeats on the battle-field: they do not believe that there are noble and ignoble callings, but more correctly, consider that some men are capable and others incapable, some idle and others diligent. So the son of a peer will become a farmer, a manufacturer, or a tradesman, without losing in anything; in fact, this is happening every day.

7th Process.—Among them, the parents precede the children in the knowledge of all things that are new and useful. How could it be otherwise in a society where the minds are turned to the future and the unceasing improvements in the usual professions, not to the past and the essentially stationary administrative situations; in a society where a success is sought, not with the help of State machinery, but almost entirely through individual initiative and personal worth? Hence there is a constant preoccupation on the part of the Anglo-Saxon to gather solid positive facts, most often without much order or method, but yet facts of value.

8th. Process.—Among them, there is little display of parental authority; they reserve such displays for exceptional and extraordinary circumstances. Have we not said that they consider their children as independent beings, and treat them as men? Indeed, we cannot form men by keeping them constantly under a yoke, even if it be the parental yoke. They think that real education consists, not in constraint, but in what they call "training." They do more by advice and gentle persuasion than by actual ordering, and are careful to make their disinterestedness more apparent than their authority. The child is allowed to digest this process—and set to work.

9th. Process.—The following, which I have kept for the end, is the most fundamental and decisive process; The boys know that their parents will not take care of their situation in life. In France, we are accustomed to such a question as this: "What will you do with your son?" The serious answer is: "I'll make a magistrate, an official of him," or something of the sort. The man would not think himself a good father unless he assured the future of his son, and found for him whatever situation he (the father) thinks most suitable. His devotion even goes the length of robbing himself of part of his fortune in order to endow his

children.

An English or American father does not portion his children; each generation has to take care of itself. Among us, on the contrary, one generation is expected to provide for the establishment of the next.

I was re-reading lately Franklin's correspondence. In a letter to his mother he alludes to one of his sons, who, probably relying on his father's fortune, showed little eagerness to find a situation for himself. "He must be disturbed," writes Franklin, "and shown, that at the rate I am spending my money, there won't be any left for him."

You fire with indignation at the idea of leaving your children no hereditary fortune. Your fatherly love revolts at the thought. You are forgetting the Anglo-Saxon father, who gives no money to his children, gives them in reality what is infinitely more than money; he gives them precisely what we are anxious to give but cannot succeed in giving to ours —that devouring spirit of initiative, that capacity to take care of themselves, which we would fain purchase with gold, and which all the gold we actually put by so painfully, so meanly, only smothers.

Young men brought up in the Anglo-Saxon way—that is, made strong in their bodies, accustomed to material facts, having always been treated as men, trained to rely on themselves alone, and looking upon life as a battle (the Christian view of life,)—bring a superabundance of youthful strength to cope with the difficulties of existance; they enjoy these difficulties, accept them, triumph over them; fitted as they are for the strife, they improve in the midst of it as in their element.

EDITORIAL.

INTRODUCTORY.

For some time the teachers of Western Canada have felt the need of a medium by which they could keep in touch with the best educational thought and practice, and through which they could exchange opinions and experiences of the realities and limitations of school education in this new country. To meet this requirement is the main object of the Educational Journal. The stimulating articles in this issue should be convincing evidence that this part of its mission will be amply fulfilled.

The editor does not intend to allow the columns of the Journal to be filled with school-room devices or examination questions. The larger problems that are pressing for solution demand first consideration. We hope to make the Journal more than a mere ~~trators in this sparsely set~~ confront parents and school administrators, in this sparcely settled country will be discussed by men like Dr. Thornton, who have a practical acquaintance with the subject. The value of libraries, literary societies and debating clubs, will not be ignored, and it is hoped that the Journal will have an influence in the direction of unifying all the educational forces of the community.

* * *

THE LATE DR. KING.

The death of the reverend principal of Manitoba College, has called forth expressions of the deepest sorrow from all classes in the community. His many admirable qualities and eminent public services earned for him the respect and gratitude of the whole country. He was regarded with warm affection by those who came within the sphere of his personal influence. There is probably no hamlet or remote settlement within the province of Manitoba in which the news of Doctor King's death was not heard with real grief by the people. To the hundreds of old students throughout the west, it brought a sense of personal loss. To them the doctor was much more than a distinguished scholar, a profound thinker, an unsurpassed teacher; he was a kind-hearted, wise and sympathetic friend, guide, and helper.

WHY BOYS LEAVE THE FARM.

The problem as to why boys leave the farm is a complex one, and is not so easily answered as many imagine. The popular solution—at least the one usually found in the newspapers—is a simple one, namely that he is educated away from the farm. The inadequacy of this answer is seen upon a cursory examination. Never in the history of education have the schools brought the pupils into such close and loving harmony with Nature and those phases of science which form the basis of agriculture. Never have the schools done so much to show the boys that they can find in farming full scope for their brains and their scientific knowledge.

Like other social phenomena, this one is the result of the action of various forces. First there are natural causes. Boys are not all adapted to farming, any more than to any other calling, and it is only natural to find them seeking some congenial occupation. Secondly there are social causes. Farm life, and especially on the prairie, is lonely. The lack of company and social pleasures has led many a boy to leave the farm. Besides this, it is generally true that the hours of work are longer, the food less varied and tempting and the attractions of the home less inviting than in the city. Thirdly, there are economic causes. Farming is not conducted on the same strict business and scientific principles as the other great industries of the nation, and it is consequently less remunerative. When agriculture pays as well as other occupations, fewer boys will leave the farm. Boys naturally seek the business that pays best and gives free scope for their ability. When farming is put upon a business basis so that it will pay, the home surroundings will be made attractive, the diet will be varied, the hours will be shortened, and the social pleasures will be abundant. When farming is put upon a scientific basis instead of upon the present unskilled labor basis, the boys will be proud of it as an occupation that utilizes their best abilities, and those that are adapted to it will stay on the farm. Those not so adapted, should seek other callings.

* * *

NOTES.

The articles by Dr. Thornton, and Inspector Lang will be completed in our April issue.—Principal McIntyre of the Manitoba Normal school, will edit the department, "In the School Room." This is sure to prove very helpful to teachers, and we invite all to contribute to its usefulness by freely offering their criticism.—"Inspection Notes" will regularly contain comments by inspectors. It will be edited by Inspector Rose.—The "Study of Birds" by Inspector Maguire will suggest to many teachers a new and interesting line of work for the coming summer.—The articles by Inspector Rothwell, Perrett, and Lang, deal with subjects on the programme of studies, and contain valuable hints for teachers.—We trust that the article on the Teachers' Association of N. W. Manitoba will stimulate the formation of similar organizations in the west. —The article on "Concentration of Schools," by Dr. Thornton, is a careful study of the rural school problem, and is worthy of the serious consideration of all interested in education—parents, school trustees, and the Department of Education.—The two selected articles—"The Troublesome Boy" and "How to Make Men," are both good. The latter is especially interesting, as a criticism of English schools from a French point of view.

BOOK REVIEWS

*The Groundwork of Number. A manual for the use of primary teachers. By A, S, Rose, and S, E. Lang, Inspectors of Schools Manitoba. Toronto; Copp. Clark Co.; 1898. Pp. viii and 123.

This is a manual for the use of primary teachers only on the supposition that the best teachers are to be found doing primary work. It is really an excellent piece of philosophical work, written in as simple a style as possible. Though it is as clear and as well written as one could wish, yet one fears that it is beyond the comprehension of the great majority of

primary teachers. The great and good Bishop Berkeley and Dr. Watson (whom one suspects to be the inspiration of the writers) have shown that it is possible to express philosophical thought in the simplest language—one is almost inclined to say, in words of one syllable—yet one must have some natural aptitude for metaphysical discussion, or some training in philosophical work, to grasp the significance of such philosophical ideas as the writers of this little manual manipulate with such facility. The writers have thought on the subject clear from stem to stern; and they have given abundant practical examples of their theory. Probably Chapters IV and V, entitled, "Practical" and "Exercises," will be found most helpful to the ordinary teacher.

* * * With regard to the second assertion, that 'all thought begins in analysis" and ends in synthesis, there can be little difference of opinion, though there may be much divergence in its applications. Nor, again, will anyone seriously contend that number is not based primarily on the idea of time. Yet many will hesitate about approving the exclusion of all reference to space, especially in the use of objects. The need for the concrete and the difficulty for many minds of finding it in purely temporal relations, make the use of objects in the study of number almost a necessity. For instance, the usual practice in teaching fractions begins with something that the child regards as a whole a spatial object such as an apple. This is divided into equal parts. The authors recommend beginning with a group of equal units. The child is asked to notice the part one unit, or a smaller group of units, is of the whole. The difficulty for the child here is to keep constantly before his mind that the group of say six units is a whole.

Mahaffy, in his commentary on Kant, after noting that the expositors of Kant have uniformly derived the science of arithmetic from intuition of time, says: "There is no other practical way of teaching arithmetic to a child or savage than by appealing to space intuitions. Let us add the sub-division of units into fractions is equally unattainable, originally, through intuition of time, but is easily obtained through space." A note refers to an "able" paper by Dr. Tarleton in Hermathena, No. 1, which develops a positive theory of the growth of arithmetic from sub-divisions of time.

W. C. M. in St. John, Educational Review.

* * *

No subject in recent years has been more often discussed than that of primary arithmetic. The method of teaching advocated are as diverse as they are numerous. For some time the work of the Brandon Normal school in arithmetic, has attracted much attention in Manitoba. The theory and method taught there has met the test of practice with remarkable success. The interest excited by the teaching of this school has persuaded Inspectors Rose and Lang to embody the work of their Normal in a book entitled, "The Groundwork of Number."

The contribution of this book to the much discussed subject of number teaching is a noteworthy one. Indeed it would be difficult to exaggerate its importance. The work is such that it will be better recommended by a noting of its principal positions and of some of the applications made of them than by any laudation which could be bestowed upon it.

Number, according to our authors, is a relation based on the idea of time. Hence ideas of number can never be originated from a consideration of space ideas. As number is a relation arithmetic is, when properly presented, a thought study.

These positions furnish data, for a criticism of some methods of teaching arithmetic. The so-called teaching, which consisted in making children memorize "tables" containing the facts of number, degraded arithmetic from its position as a thought study While Grube emancipated arithmetic from this subordination of reason to memory, his misapplication of the principle, "Sense perception is the basis of instruction," led him to think that the study of objects—perception of space forms—could help in the scientific study of number. This view, that there is a spatial element in our

number ideas, has led also to the erroneous idea of fractions as arising from the division of some unit, a conception which is the source of much bad work.

The main proposition of Chapter III, is the well known law, "All thought begins in analysis." Attention is forcibly drawn to the fundamental importance of this law to the teacher. From it inferences of the greatest value are drawn as to the order of addition, subtraction, and other arithmetical operations. Our authors traverse the position of some well known books in a decidedly effective way. The chapter closes with an all too brief discussion of the difference between the so-called "drill" and real review.

The next chapter exemplifies the methods based on the propositions before laid down. Thorough treatment is given such practical subjects as the age for beginning the scientific study of arithmetic, the seat work question, and the character of the problems which may be given children. Some one has said that the superiority of the civilized man to the savage lies in the superior numerical notation used by the former. The truth in this remark gets a needed emphasis here, and the immense practical value of a recognition by the teacher of the fact that we possess a decimal notation is adequately dealt with.

The last chapter illustrates by a great number of exercises the method to be adopted in developing the subject. The method of treating the numbers six and ten is fully shown and a full set of questions illustrates how ten is to be made the base for all numerical thinking. A long list of problems closes the chapter.

It is high praise to say that the execution is worthy of the thought of the book. The work is clear without sacrificing depth. It is philosophical without being obscure, and it is convincing without being polemic. The authors had the difficult task of clearing away a good deal of rubbish before they could lay the ground work of a rational procedure in number teaching. They have done this in a masterly way. Prejudices are removed, wrong theories disposed of in a way all the more effective because this work is treated as merely incidental to the positive work of building.

The book is a fine justification of Rosenkranz's remark that every subject has an immortal inherent rationality which should determine in some measure the method of its presentation. It is practical in a two fold way. In the highest sense it is practical because its main propositions are based on a sound psychology. It is practical again because these propositions are fully and clearly applied to the actual work of teaching number.

The book has just been placed on the market by the Copp Clark Company, to whose enterprise educational Canada has been already so often indebted.

C. A. H.

DEPARTMENT OF EDUCATION, MANITOBA.

ENTRANCE WORK FOR 1899.

READING.

Fifth Reader (Victorian) from page 228 to the end of the book, with special reference to the following selections:

1. The Vision of Sir Launfal.
2. Burial March of Dundee.
3. The Skylark.—Hogg, Wordsworth, and Shelley.
4. Cotter's Saturday Night.
5. Fight with a Dragon.
6. Tempest.
7. The Great Carbuncle.
8. The Battle of Lake Regillus.
9. Perseus.
10. From Dawn to Dawn in the Alps.

COMPOSITION.

Exercises based on observation lessons, reading lessons, historical tales, geography, personal experience. Special attention to:

1. Language as an expression of thought.

2. Order of thought

3. Correction of common errors in speech.

Letter writing, making of abstracts, expansion of narrative sentences into paragraphs, arrangement of words in sentences. structure of paragraphs, narration, description, common figures of speech.

WRITING AND SPELLING.

On all papers.

ARITHMETIC.

Percentage, insurance, commission, and brokerage, profit and loss, duties, interest, and discount, measurement of surfaces, of rectangular solids, and of cylinders, square root with easy applications.

ELEMENTARY SCIENCE

As outlined in Prairie Agriculture. Series11.

MUSIC.

Completing Introductory Third Reader, chromatic scales minor scales third time chart, modulation, exercises in vowels, humming exercises, breathing exercises.

DRAWING.

Drawing books 7 and 8 (when bound in one cover called sixth year book) Teachers' Manual, Part IV.

1. Sketches from nature. use of objects and models, readiness in arranging a group, practice for freedom in getting an outline drawing in "study," foreshortening, proportion, convergence, simplicity and grace in arrangement and rendering.

2. First steps in instrumental drawing, geometric problems, ability to shew from simple object two or three views figured, pattern making, accurate developments from the types, prism, cylinder, cone.

3. Study from illustrations, historic ornament, decorative treatment of flower in spray, modern uses of ornament.

NOTE.—Special features of the book work—as the lessons under Composition and Design, the studies in light and shade, and color, etc.,—to be met or adapted according to local conditions. Read notes on cover of pupil's drawing book.

GEOGRAPHY.

Physical geography.

General review of the continents with special reference to British possessions, physical features of the grand divisions, position of the countries, in the grand divisions, surroundings, surface, climate, animal and vegetable life, resources, inhabitants, their occupations and social conditions, important localities, cities and towns.

HISTORY.

English history. Creighton reviewed.

Canadian, from Confederation to the present time.

ALGEBRA.

Simple rules, simple equations, problems, easy exercises in factoring.

GEOMETRY.

Euclid, Book I, Propositions, I-XXVI.

GRAMMAR.

Examination and comparison of easy sentences leading to classification into declarative, interrogative, etc.; division of compound sentences into independent propositions, division of easy sentences into subject and predicate, division of (a) complete subject into bare subject and modifiers, (b) complete predicate into bare predicate and modifiers, comparison of word groups leading to the distinction between (a) phrases and clauses, (b) principal uses and subordinate clauses, examination and comparison of words phrases and dependent clauses with regard to their use in sentence, analysis of compound sentences, easy complex sentences and continuous prose distinguishing between (a) the different naming words, (b) the different modifying words, (c) the different connecting words, accurately defining parts of speech; inflection; parsing.

NEW REGULATION.

The Advisory Board has decided in future persons holding third class certificates, will not be allowed to write for another third class non-professional certificate, but another third class professional certificate may be issued to persons who have taken a first or second class non-professional certificate and have had the requisite Normal school training, on the recommendation of an inspector,