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# The Canada School Journal.

VOL. VIII.

TORONTO, FEBRUARY, 1883.

No. 68.

## The Canada School Journal

IS PUBLISHED THE FIRST OF EACH MONTH AT

11 WELLINGTON ST. WEST, TORONTO, ONT., CAN.

Subscription \$1.00 per year, payable in advance.

Address—W. J. GAGE & CO., Toronto.

CANADA SCHOOL JOURNAL HAS RECEIVED

*An Honorable Mention at Paris Exhibition, 1878.  
Recommended by the Minister of Education for Ontario.  
Recommended by the Council of Public Instruction, Quebec.  
Recommended by Chief Superintendent of Education, New Brunswick.  
Recommended by Chief Superintendent of Education, Nova Scotia.  
Recommended by Chief Superintendent of Education, British Columbia.  
Recommended by Chief Superintendent of Education, Manitoba.*

The Publishers frequently receive letters from their friends complaining of the non-receipt of the JOURNAL. In explanation they would state, as subscriptions are necessarily payable in advance, the mailing clerks have instructions to discontinue the paper when a subscription expires. The clerks are, of course, unable to make any distinction in a list containing names from all parts of the United States and Canada.

### THE BIBLE IN SCHOOLS.

We publish as a closing contribution to the discussion of this topic the following letter from the Rev. John Laing of Dundas:—

Sir,—Accept of thanks for the brief comment on my letter to the *Mail* of December 13, which I find in the January number of the JOURNAL. Perhaps you will allow your readers who may not see the *Mail* to peruse the following statements in regard to your article. You have, I think, succeeded in clearly stating the points at issue:—

1. You say, "it is quite clear that what the (deputation) wanted was to have the Bible placed in the hands of the pupils as an ordinary class-book, and to have the teachers required by law to explain and illustrate its text as they would that of any other text-book." I reply: We wish the Bible used as a class-book; we do not wish teachers to give any explanation beyond what is necessary for the understanding of the text. In other words we wish the children taught to read the book *intelligently*, just as they read the Third Book. This does not imply theological instruction.

2. You say, "This of necessity implies that the teachers must themselves make the Bible a subject of study, and that they must be examined as to their acquaintance with its contents." I reply: (1) Certainly a teacher must study the class-book before he can teach it intelligently; and surely no man would propose that a man or woman that will not study the Bible so far as to be able to teach the pupils should be put by Christian parents in the position of teacher of their children. (2) Examination as to acquaintance with its contents would not be necessary. No teacher is examined on the contents of the Third Book before he is required to teach it. But if a teacher had passed this in a public school in which the Bible was a class-book, he would be acquainted with it just as our teachers are now acquainted with the Third Book, and he would be quite as competent to teach the former as the latter.

3. As to a change in the law—you are right. We wish the Regulations changed, but not the text of the School Act. I mean by this simply that no legislative action is required to accomplish the change asked for, as both the spirit and letter of the law allow the change to be made without political or parliamentary interposition. Keep our school interests if possible out of the political arena.

4. You ask, "How then (that is, without a penalty being enacted) would any change in the wording of the Regulations promote the

use of the Bible in schools?" I reply: 'Possession is nine points in law.' If the use of the Bible were mandatory, it would be used unless there were opposition. As matters now stand it will *not* be used, unless some learned minister or layman (religious cranks they have been called) stir up the community, and create bad feeling by arousing the animosity of the opposing minority, if there be such. I am convinced that there is not one school section in the province in which a majority would vote the Bible out. Whereas we know that the number of schools in which the Bible is read by the pupils as a class-book is very small. Every man knows the difference between getting a disputed thing introduced, and maintaining it when so established.

5. You advise the clergy "to exert themselves a little more in their own localities." I thank you for the advice. Some of us do this; but we are of opinion that the most effectual way in which we can exert ourselves is to ask the Department, not the Legislature, to change the present Regulations—and we venture to prefer our opinion to your advice. Pardon us.

I am much pleased to see that you have given so full an abstract from Mr. McEwan's address, and most heartily do I subscribe to the closing sentiment: "It is not an open question that this Book dominates the literary work of modern life with its moral power, and what we wish to appear in national life must be taught in our schools.

I am, yours truly,

THE MANSE, DUNDAS,  
Jan. 15. 1883.

JOHN LAING.

We do not see anything in Mr. Laing's reply to our previous remarks to justify us in changing the opinion therein expressed, namely, that whatever may be shown to be the case hereafter, the time has not yet come for a change in the law relating to the use of the Bible in schools. We believe that the more general use of the Bible would be both acceptable to the masses of the people and profitable to the pupils. We believe also that there is no better way of teaching Christian ethics—the noblest system of moral philosophy the world has ever seen—than by the use of certain portions of the sacred text. On the other hand we believe that a steady improvement is taking place in the morality of our schools, and also that the improvement would be more marked and the use of the Bible more general if clergymen would only use the influence in their own localities which the law permits and invites them to exercise.

We agree with Mr. Laing and other ministers of the gospel that it is unreasonable to expect them to teach in the schools. It is not unreasonable, however, to ask them to visit the schools more frequently, and that in their official capacity. In this direction we look for the best solution of the whole difficulty. Let all the clergymen in the Province, of all denominations, unite in the movement to promote the use of the Bible as a text-book, and see what result one year will produce. If there is not a marked and decided improvement then it will be time enough to speak of changing the law—for it must never be forgotten that the Departmental Regulations are as much part of the school law as the text of the Act is. As such they cannot be lightly changed, especially in regard to points where the language of the regulations is the result of careful compromise and has been left unchanged for a generation.

## SCHOOL LEGISLATION.

The sudden and lamented illness of the Hon. Adam Crooks at the very opening of the late session of the Ontario Legislature, prevented any amendments from being made to the School Acts. Had he remained in his usual health it was his intention to secure a workable consolidation of a law which is now to some extent a thing of shreds and patches. Since the last consolidation several amendments have been made to the law by Act of Parliament, and it would be a benefit to all who have anything to do with school work to get the text of the Acts consolidated into a single statute.

It is to be hoped that Mr. Crooks' illness is only temporary and that he will be enabled to bring about this much needed improvement in the law, as well as continue to successfully administer it for a long time to come. But it is to be hoped also that when the law is thus simplified in form no more amendments will be allowed of the kind hitherto so common. Every statute is defective in some minor points, but it is frequently better to allow matters to adapt themselves to a defective system than to keep persistently tinkering it. The School Act would not absolutely require amendment for years to come, and those members of the Legislature who are always searching out little defects and introducing bills to remedy them will confer a benefit on the public by turning their attention for a while to other matters.

## THE ENGLISH EDUCATION ACT.

The readers of the CANADA SCHOOL JOURNAL can rightfully demand to be kept *au courant* with significant educational movements and advances in other lands. In our last number attention was directed to the voluminous and instructive Report of the National Bureau of Education at Washington. Our brief reference by no means exhausted the interest attaching to that important publication, and we propose at an early date to recur to its suggestive statistics for some lessons appropriate to our own educational position. From time to time we have chronicled the developments of popular education in Great Britain, as departmental circulars and parliamentary discussions have placed the means at our disposal.

As tending to show the depth to which the roots of national education have already struck down in the Mother Country, we may properly refer to a somewhat remarkable article contributed to *The Nineteenth Century* for December, by his eminence Cardinal Manning. It does not concern either us or our readers to discuss the main drift of the eloquent Archbishop's essay, which is in a word, to show that voluntary, as well as board schools should share in the rates levied for the support of elementary education. We refer to it in view of the distinct emphasis with which it recognizes the value and substantial permanence of the principles underlying the Education Act of 1870. "To propose its repeal," we are told, would be like proposing the repeal of the Gregorian Calendar."  
....."The Act of 1870 was necessary. The population

outgrown all existing means of education. The children uneducated counted by hundreds of thousands, perhaps by millions. The standard of education was on a low level. England was behind both Germany and France in the diffusion of intellectual culture, at least among the lower and middle classes of the people." In these few and forcible words the whole story is told. Incidentally, we may refer to them as illustrating that rare power of compression which only the rarest literary genius can command. Further, the learned prelate has studied too deeply the phenomena of European politics and sociology to have any sympathy with Richard Grant White's monstrous dogma, that ignorance is a safeguard and guarantee of virtue:

"Putting away all ecclesiastical questions, it cannot be denied that the state is justified in providing for the education of its people. It has a right to protect itself from the dangers arising from ignorance and vice, which breed crime and turbulence. It has a duty also to protect children from the neglect and sin of parents, and to guard their rights to receive an education which shall fit them for human society and civil life." The subsequent suggested modifications of the rights of the civil power do not affect the validity of the primal principles here so eloquently stated.

The Elementary Education Act has been in force for thirteen years, working its way quietly and effectively, while the external life of the nation has been shaken by the conflicts of diplomacy, by "wars and the rumors of wars" "Its principles," we are told, "have been so long admitted, and have worked themselves so deeply into public opinion and daily practice, that no scheme or proposition at variance with them would be listened to. The condition thus made for us being irreversible, our duty is to work upon it and to work onward from it for the future." The "irreversible condition" is defined minutely in the following admirable summary of the principles of the Education Act:

1. That education, whether by voluntary schools or by rate schools, shall be universal, and co-extensive with the needs of the whole population.

2. That an education rate shall be levied in all places where the existing schools are not sufficient for the population in number or efficiency, and that such sum shall be administered by a board elected by the rate-payers.

3. That the standard of education shall be raised to meet the needs and gradations of the people.

4. That all schools receiving aid, whether by Government grants or rates, shall be brought under the provisions of the statute law.

5. That all such schools shall be under inspection of the Government, and bound by all minutes and codes of the committee of Privy Council as sanctioned by Parliament.

6. That education shall, under certain conditions and for certain classes, be compulsory."

Candor compels us to express a doubt if "the further extension of these principles" which the Cardinal Archbishop advocates be really feasible. Certainly it is not in accord with the prevailing temper of the English people at this precise epoch.

Mathematical Department.

INTERMEDIATE EXAMINATIONS. -- DEC., 1882.

ARITHMETIC.

TIME—THREE HOURS.

1. There is a rectangle whose length is  $1\frac{1}{2}$  times its width, and which may be planked with boards of lengths 5, 8, or 9 ft., all running parallel to any (the same) side. What is the least size of the rectangle?

2. If an ounce of pure gold be worth £3 18s. and  $\frac{3}{8}$  in weight of a guinea be pure gold, and the remainder an alloy 50 times less valuable; what is the weight of the pure gold in a guinea?

3. How much money must be invested in stock at  $97\frac{1}{2}$  which pays an annual dividend of 6 per cent., to realize an income of \$600 per annum?

4. A person invests \$4500 in purchasing stock at 90 (par value 100). In 3 months he sells 30 shares at 95, and in 3 months thereafter the remainder at 87. If his money be worth 8 per cent., what does he gain or lose by the transaction, no dividend having been paid on the stock in the interval?

5. Show that the following is approximately a correct method of calculating interest at 6 per cent. for a given number of days:— "Divide the number of days by 6; multiply the quotient by the number of dollars on which interest is required, and the result is the interest expressed in mills."

6. A bill due 4 months hence is discounted at 7 per cent. per annum (true discount), and \$1267 is received for it. What is its face value?

7. At what rate per cent. will \$100 in 3 years amount to as much as \$120 in 2 years at 7 per cent.?

8. A mortgage which is redeemed, principal and interest, by 3 equal annual payments of \$200 each, is to be sold. What justly should now (a year before the first payment) be paid for it; interest 7 per cent. per annum?

9. A grocer has teas at 5s. and 3s. 6d. per lb. He mixes them in equal quantities, and sells the mixture at such a price that he gains as much per cent. on one kind as he loses per cent. on the other. What was the selling price, and what does he gain or lose per cent.?

10. The volume of a solid whose faces are rectangles is 786 cubic feet, and its edges are as the numbers 1, 2, 3. Find lengths of these edges.

Values:—1, 10; 2, 12; 3, 8; 4, 10; 5, 10; 6, 8; 7, 10; 8, 10; 9, 12; 10, 10.

SOLUTIONS.

1. The sides are as 3 : 2; 360 ft. is the least distance that will exactly contain 5, 8, or 9 ft.  $\therefore 3 \times 360$  and  $2 \times 360$ , or 1080 by 720 is the least rectangle of the kind.

2. Weight =  $\frac{3}{8}$  weight of gold +  $\frac{1}{8}$  weight of alloy  
Value =  $\frac{3}{8}$  gold +  $\frac{1}{8}$  alloy =  $\frac{3}{8} \times 21s. + \frac{1}{8} \times 21s. = 7s. + 2s. 6d. = 9s. 6d.$   
weight of gold =  $\frac{3}{8} \times 21s. = 7s. 7\frac{1}{2}d.$

3.  $\frac{\text{Sum} \times 6}{100} = 600 \therefore \text{sum} = 100 \times 97\frac{1}{2} = \$9750.$

4.  $4500 \div 90 = 50$  shares.  
Int. on 4500 for 3 m. = \$90. Rec.  $30 \times 95 = 2850$ , bal. on int. = 1650  
" 1650 " = \$33. "  $20 \times 87 = 1740$

Total interest = \$123 Total R. = 4590  $\therefore$  G on sales = \$90  
 $\therefore$  Loss =  $123 - 90 = \$33$

5. 1yr. = 360dys. (nearly)  $\therefore$  int. on \$1 for 1 day = 6 cents  $\div$  360 =  $\frac{1}{60}$  mill

$\therefore$  Int. on any sum =  $\frac{1}{60}$  mill  $\times$  days  $\times$  sum =  $(\frac{\text{days}}{60} \times \text{sum})$  mills, which is the rule.

6. Int. =  $\frac{1}{100}$  face,  $\therefore$  dia. =  $\frac{1}{100}$  face,  $\therefore$  proceeds =  $\frac{99}{100}$  face = 1267  
 $\therefore$  face =  $1267 \times \frac{100}{99} = \$1296.56\frac{1}{3}$ .

7. Kind of interest not stated.  
 $100(1+3r) = 120(1+r)$ ; or  $100(1+r)^2 = 120(1+\frac{1}{100}r)^2$  according as simple or compound int. is meant. In the former case  
 $1+3r = \frac{120}{100} = 1.2 \therefore 3r = .2 \therefore r = \frac{1}{15} = 6\frac{2}{3}\%$   
 $\therefore 3R = 36\frac{2}{3}$ , and  $R = 12\frac{1}{3}\%$ .

In the latter case  
 $(1+r)^2 = \frac{120}{100}(1.07)^2 = 1.37388$   
 $\therefore 1+r = \sqrt{1.37388} = 1.116+$ ,  $\therefore r = .116$ ,  $\bar{r} = 11\frac{1}{2}\%$  nearly.

8. We shall assume compound interest intended.  
Then amt. of mortgage =  $250(1.07^2 + 1.07 + 1) = P. W. \times (1.07)^3$   
or  $P. W. = 250 \times \frac{1.07^2 + 1.07 + 1}{1.07^3} = 803.725 \div 1.225043 = \$656.08.$

Or we may take the sum of the present worths of the 3 payts. thus  
 $P. W. = \frac{250}{1.07} + \frac{250}{1.07^2} + \frac{250}{1.07^3} = 250 \left( \frac{1}{1.07} + \frac{1}{1.07^2} + \frac{1}{1.07^3} \right)$   
 $= 250 \times \frac{1.07^2 + 1.07 + 1}{1.07^3}$  as before.

See EXAMINATION PAPERS IN ARITHMETIC, p. 3.

9. Cost of teas = 42d. and 42d., cost of mixture = 51d.

Selling price = 49 $\frac{1}{2}$ d., loss % =  $3\frac{3}{8}\%$ .  
10. Assuming that each solid angle has its three planes mutually at right angles, let  $x$  be the number of feet in the shortest edge  
 $\therefore 6x^3 = 786$  cub. ft.  $\therefore x^3 = 131$   $x = 5.078753$ , and the lengths are 5.078753, 10.157506, and 15.236259 ft. respectively.

ALGEBRA.

TIME—TWO HOURS AND A HALF.

1. Find the factors of  $x^3 + y^3 + z^3$  when  $x + y + z = 0$ .  
Find the binomial expression which equated to zero will make  $x^3 - (2a+b)x^2 + (2ab+a^2)x - a^2b$  vanish.

2. Without simplifying  $(a+b+c)(ab+bc+ca) - (a+b)(b+c)(c+a)$ , shew that it is equal to  $abc$ .

3. Find the H. C. F. of  $x^3 - 2x^2y + 4xy^2 - 8y^3$  and  $x^3 + 2x^2y + 4xy^2 + 8y^3$ ; and the L.C.M. of

$(a+b)\{(a+b)^2 - c^2\}$  and  $4b^2c^2 - (a^2 - b^2 - c^2)^2$ .

4. Simplify  
(1)  $\frac{(x+a)(x+b)}{(b-c)(b-a)} + \frac{(x+b)(x+c)}{(c-a)(a-b)} + \frac{(x+c)(x+a)}{(a-b)(b-c)}$   
(2)  $\frac{(s-a)(s-b) + (s-b)(s-c)}{+ (s-c)(s-a) - (s-a)(s-b)(s-c)}$  where  $2s = a + b + c$ .

5. Solve the equations  
(1)  $\frac{1}{x-1} + \frac{1}{x-2} = \frac{2}{x}$ .

(2)  $\frac{x}{a+b-c} + \frac{x}{a+b+c} = \frac{a+b}{a^2+b^2-c^2+2ab}$ .

(3)  $\frac{x}{(a-b)(b-c)} + \frac{x}{(b-c)(c-a)} + \frac{x}{(c-a)(a-b)}$   
 $= \frac{1}{(a-b)(b-c)(c-a)}$ .

6. A man buys  $a$  shares of a certain stock for  $b$  dollars, and sells  $c$  shares of the stock at an advance of  $p$  per cent. At what price should he sell the remainder so as to gain  $3p$  per cent. on the whole.

7. Extract the square root of  $\frac{x}{y} + \frac{y}{x} + x + y + 2 + \frac{x}{\sqrt{y}} + \frac{y}{\sqrt{x}} + \sqrt{x} + \sqrt{y} + 2\sqrt{xy}$ ; and the cube root of  $a^3 + x^3$  to three terms.

8. (1) If  $a^4 + \frac{1}{a^4} = a^2 + \frac{1}{a^2} + 2$ , determine the value of  $a^2 + \frac{1}{a^2}$ .

(2) If  $ax^2 + by^2 + cz^2 + 2a^2yz + 2b^2zx + 2c^2xy = 0$  and  $(ax + cy + bz)^2 = Ay^2 + Bxz + Cz^2$ , determine  $A, B, C$ .

$\therefore$  Solve the equations  
(1)  $\left\{ \begin{array}{l} \frac{1}{x} + \frac{2}{y} = 8 \\ 6xy = 1 \end{array} \right.$

(2)  $x^2 + xy^2 = 16 = y^3 + x^2y$ .

(3) Find values for  $x$  and  $y$  which will make  $x^2y + y^3 + x$  and  $xy^2 + x^3 + y$  simultaneously vanish.

10. There are three numbers; their sum is equal to their product; the sum of the first and the third is half the second; and the product of the first and second, less the first, is equal to the third. Find the numbers.

SOLUTIONS.

1. If  $x + y + z = 0$ ,  $x + y = -z$ ,  $x^3 + y^3 + 3xy(x+y) = -z^3$   
i.e.  $x^3 + y^3 + 3xy(-z) = -z^3 \therefore x^3 + y^3 + z^3 = 3xyz$ .  
Observe that only a single power of  $b$  is involved. Arrange according to  $b$ , and we have  
 $-b(x^2 - 2ax + a^2) + x(x^2 - 2ax + a^2)$ , or  $(x-b)(x-a)^2$   
Thus if  $x-b=0$  or if  $x-a=0$  the given expression vanishes.  
See TEACHERS' HANDBOOK p. 81.

2. Observe the symmetry. If  $a$  is a factor the whole expression must vanish when that factor vanishes. Put  $a=0$  and we get

$(b+c)bc - bc(b+c) = 0$ . Hence  $a$  is a factor; by symmetry  $b$  and  $c$  are factors.  $abc$  is a factor.

$\therefore$  Express. =  $Kabc$  where  $K$  is a numerical factor, since each term is of only three dimensions. To find  $K$ , put  $a=b=c=1$ , and  $K=1$ .

See TEACHERS' HANDBOOK p. 85.

3. For 2y write  $m$  and  $A=x^2-mx^2+m^2x-m^3$ ,  $B=x^3+mx^2+m^2x+m^3$ .

Then  $A+B=2x(x^2+m^2)$ ,  $A-B=2m(x^2+m^2)$ .  $x^2+m^2$ , i.e.  $x^2+4y^2 = H.C.F.$

$$R=(a+b)(a+b-c)(a+b+c)$$

$$S=(a+b-c)(a-b+c)(a+b+c)(b+c-a)$$

$$\therefore L.C.M. = (a+b)(a+b-c)(a+b+c)(a-b+c)(b+c-a)$$

4. (1) Numr. of sum =  $(x+a)(x+b)(a-b) + (x+b)(x+c)(b-c) + (x+c)(x+a)(c-a)$ .

To factor this, put  $(a-b)=0$  i.e.  $a=b$ , (as in 2) and we have  $0 + (x+a)(x+c)(a-c) + (x+c)(x+a)(c-a)$  which  $=0 \therefore a-b$  is a factor

$\therefore$  Expn. =  $K(a-b)(b-c)(c-a)$ . Put  $x=0$ ,  $a=1$ ,  $b=2$ ,  $c=3$  and we find  $K=-1$  which is the value of the sum, since  $(a-b)(b-c)(c-a)$  cancels out of Numerator and Denominator.

See TEACHERS' HANDBOOK p. 53.

(2) Put  $a=0$  and we have  $2s=b+c$ , also

$$s(s(s-b)+s(s-b)(s-c)+s(s-c)(s-s(s-b)(s-c)))$$

$$\text{or } s^2\{s-b+(s-c)\}, \text{ i.e. } s^2\{2s-(b+c)\}, \text{ which } = 0.$$

Hence  $a$  is a factor and expression =  $Kabc$ . To find  $K$ , put  $a=b=c=2 \therefore s=3$ , and  $K$  is found to equal 1.  $\therefore$  expression =  $abc$ .

5. (1) Transpose thus  $\frac{1}{x-1} - \frac{1}{x} = \frac{1}{x} - \frac{1}{x-2}$ . Add the sides sep'ly

$$\text{and } \frac{1}{x(x-1)} = \frac{-2}{x(x-2)} \therefore x=0 \text{ and } \frac{1}{x-1} = \frac{-2}{x-2} \therefore x = \frac{4}{3}$$

(2) For  $a+b$  write  $m$  and we get

$$\frac{x}{m-c} + \frac{x}{m+c} = \frac{m}{(m+c)(m-c)} \therefore 2mx = m \text{ and } x = \frac{1}{2}$$

(3) Clear of fractions;  $x(c-a+a-b+b-c) = 1$

$$x(0) = 1, x = \frac{1}{2} = \infty$$

6.  $a$  shares cost  $\$b$ , one share cost  $\frac{b}{a}$ . Ad. of  $p\% = (1 + \frac{p}{100}) \frac{b}{a}$

$\therefore c$  shares sold for  $\frac{bc}{100a} (p+100)$ .

Total proceeds need to be  $\$b(1 + \frac{3p}{100}) = \frac{b}{100} (3p+100)$

$\therefore$  remaining  $(a-c)$  shares must sell for

$$\frac{b}{100} (3p+100) - \frac{bc}{100a} (p+100)$$

or price of one share =  $\frac{b}{100(a-c)} \{3p+100 - \frac{c}{a}(p+100)\}$

7. Taking square root of first four terms we have

$$\frac{\sqrt{x} + \sqrt{y}}{\sqrt{xy}} + \sqrt{x} + \sqrt{y} \text{ the square of which agrees with the given}$$

expression except that it would require the coefficients of 6th 7th, 8th and 9th terms to be 2 instead of one. Hence there is a remainder

$$-\frac{x}{\sqrt{y}} - \frac{y}{\sqrt{x}} - \sqrt{x} - \sqrt{y}. \text{ See TEACHERS' HANDBOOK p. 11}$$

$$(1+x)^{\frac{p}{q}} = 1 + \frac{p}{q}x + \frac{p(-q)}{1 \cdot 2 \cdot q^2}x^2 + \&c. \text{ by Binomial Theorem.}$$

Thus  $(a^3+x^3)^{\frac{1}{3}} = a(1 + \frac{x^3}{a^3})^{\frac{1}{3}} = a\{1 + \frac{1}{3}(\frac{x^3}{a^3}) + \frac{1 \cdot -2}{1 \cdot 2 \cdot 3^2}(\frac{x^3}{a^3})^2 + \&c.\}$

$$= 1 + \frac{x^3}{3a^2} - \frac{x^6}{9a^5} + \&c.$$

8. (1) Let  $a^2 + \frac{1}{a^2} = m$

$$\therefore m^2 - 2 = a^4 + \frac{1}{a^4} \text{ which } = a^4 + \frac{1}{a^4} + 2 = m + 2$$

$$\therefore m^2 - m - 4 = 0, m = \frac{1}{2}(1 \pm \sqrt{17}) = a^2 + \frac{1}{a^2}$$

Multiply 1st by  $a$  and 2nd expanded, three terms cancel and we get

$$y^2(c_1 - ab) + z^2(b_1^2 - ac) + yz(b_1c_1 - aa_1) = Ay^2 + Byz + Cz^2$$

$\therefore A = c_1 - ab$ ,  $B = b_1^2 - ac$ ,  $C = b_1c_1 - aa_1$  if the expression is an identity.

9. (1)  $2x+y=8xy=\frac{8}{3}$  from 2nd;  $6x+3y=4$ ,  $y = \frac{4-6x}{3}$

$\therefore 6xy = 8x - 12x^2 = 1$ ,  $12x^2 - 8x + 1 = 0$  or  $(6x-1)(2x-1) = 0$ ,  $x = \frac{1}{6}$  or  $\frac{1}{2}$  &c.

(2) Put  $y = Kx$  and divide 1st by 2nd  $1 + K^2 = K^3 + K$

or  $K^3 - K^2 + K - 1 = 0$  i.e.  $(K-1)(K^2 + K + 1) = 0$

$$\therefore K = 1 \text{ or } \frac{1}{2}(-1 \pm \sqrt{-3})$$

Substitute these values and we get three values each for  $x$  and  $y$ .

(3) Add, and  $xu(x+y) + (x^2+y^2) + (x+y) = 0 \therefore x+y=0$   $x=-y$

Substitute this value of  $y$  in 1st and

$$-x^3 - x^3 + x = 0 \therefore x=0=y, \text{ also } -2x^2+1=0, 4x^2=2, x = \pm \frac{1}{\sqrt{2}}$$

$$\therefore y = \mp \frac{1}{\sqrt{2}}$$

10. We have  $x+y+z=xyz$ ,  $2x+2z=y$ ,  $xy-xz=$

From 3rd and 2nd  $xy = x+z = \frac{1}{2}y \therefore y=0, x=\frac{1}{2}, z=-\frac{1}{2}$ .

## NATURAL PHILOSOPHY.

TIME—TWO HOURS AND A HALF.

1. What power (in pounds) is required to maintain a barrel weighing 150 pounds on an inclined plane. Plane inclined at an angle of  $45^\circ$  to the horizon.

2. A power = 6 pounds, applied at the end of a bar of metal of uniform thickness and density, balances a weight = 64 pounds, applied 4 inches from the fulcrum. The bar acts as a lever of the 1st class, and is 3 feet 6 inches long. Determine the pressure exerted by the system upon the fulcrum.

3. State the conditions of equilibrium of floating bodies.

4. Distinguish between:—

(i.) Mass and Weight;

(ii.) Density and Specific Gravity.

5. What pressure must be exerted upon a cylinder of fir wood, the volume of which = 94.248 cubic inches, that it may be totally submerged in water? (Weight of cubic inch of water = 252.456 grains.)

6. Explain the theory of the Siphon.

7. How may the centre of gravity of a body be determined experimentally?

8. A cylinder of wood 10 inches high sinks to a depth of  $5\frac{1}{2}$  inches in water, to the depth of 7 inches in another liquid. What is the specific gravity of the latter liquid?

9. The diameter of the plate of a hydrostatic bellows is 16 inches, a weight of 180 pounds is placed upon it; what will be the height of the water in the pipe? Diameter of pipe one inch.

## SOLUTIONS.

1. The direction of the power is omitted in the problem.

Let  $AB$  = length of plane =  $L$ ,  $BC$  = height =  $H$ ,  $AC$  = base =  $B$ .

From  $AB$  draw  $KM$  in the direction in which the power acts, take  $KM$  to represent the power, draw  $MN$  vertically downwards; and from  $K$  draw  $KN$  perpendicular to plane meeting  $MN$  in  $N$ . Then the triangle  $MKN$  represents the three forces which are in equilibrium,  $\therefore P:W:R = KM:MN:NK$ . But we cannot solve the triangle  $KMN$  unless the angle  $MKB$  is given, and when given we require trigonometry unless it be  $30^\circ$ ,  $45^\circ$ , or  $50^\circ$ .

In case the power acts parallel to the plane the above proportion becomes, by similar triangles,  $P:W:R = H:L:B$ ; if parallel to base  $P:W:R = H:B:L$ . And in this problem  $W = 150$  and  $H = B \therefore L = H\sqrt{2}$ , so that we have  $P:150 = 1:\sqrt{2}$ , or  $P:150 = 1:1 \therefore P = 75\sqrt{2}$  or 150.

2. The direction of the power is not given. The position of the weight is left uncertain. If it is not at the end, and the bar projects beyond the point where the weight is suspended, the problem is indeterminate. Assuming the power to act vertically and the weight to hang from the extremity to the bar, let  $B$  = weight of bar, whose centre of gravity will be 17 inches from fulcrum.

We have  $4 \times 64 = 17B + 6 \times 38$ , whence  $B = 1\frac{1}{3}$ .

Total pressure =  $64 + 1\frac{1}{3} + 6 = 71\frac{1}{3}$ .

3. Book-work.

4. The word *mass* is used as an abbreviation for "quantity of matter."—*Todhunter*.

It is found that on all bodies on the earth a pressure is exerted downwards in a vertical direction, and this pressure which is called the *weight* of the body is invariable at the same place for the same body at all times, whatever form, size, or position the body may be made to take.—*Cherriman*. We estimate the mass by observing the weight, since they are proportional to each other.

*Density* expresses the relation between the mass and the volume.

*Specific Gravity* denotes the relation between the density of a given substance and the density of a standard substance.

5. *S. G.* of fir wood not given. It is = 6.

Hence submerging pressure required = 4, or on given cylinder =  $94.248 \times 252.456 \times 4$  grains.

6. and 7. Book-work.

8. Weight of cylinder =  $5\frac{1}{2}$  inches of water = 7 inches of liquid

$$\therefore 1 \text{ inch of liquid} = 5\frac{1}{2} \div 7 = \frac{1}{2} \text{ inch of water. } S. G. = \frac{1}{2}$$

9. Area of bellows : area of pipe =  $16^2 : 1^2 = 256 : 1$   
 $\therefore$  weight of water in pipe =  $\frac{1}{256} \times 1728 = 6\frac{3}{4}$  lb =  $4^{\frac{1}{2}}$  oz Av.  
 Now 1728 cubic inches in water weigh about 1000oz  
 $\therefore$  number cubic inches in pipe =  $1000 \div \frac{1}{256} = 88\frac{2}{3}$  = height.

EUCLID.

TIME—TWO HOURS AND A HALF.

1. State the different conditions of equality of two triangles, as given in the first book of Euclid.
2. If two triangles have two sides in one equal to two sides in the other, each to each, and an angle, opposite an equal side, equal in each, are the triangles necessarily equal? Explain.
3. Any two sides of a triangle are together greater than the third side.
4. If a point be taken within a triangle and lines be drawn from it to the extremities of the base, the sum of these lines is less than the sum of the two sides of the triangle.
5. The three angles of a triangle are together equal to two right angles.
6. Three unlimited straight lines intersect one another not in a common point. What is the sum of all the angles formed?
7. If a line be divided into two equal parts and also into two unequal parts, the square upon the greater unequal part is equal to the square upon the less unequal part, together with four times the rectangle contained by the half line and the line between the points of section.
8.  $ABC$  is a triangle, and  $CD$  bisects the base  $AB$  in  $D$ . Show that  $AC^2 + CB^2 = 2AD^2 + 2DC^2$ .
9. Show how to construct a square equal to a given triangle.

SOLUTIONS.

1. There are four cases. 4, 26, 8, 26. See Hamblin Smith's Geometry p. 15, or Potts's Euclid p. 54, Todhunter's Euclid p. 261.
2. If the angles opposite to the other equal sides be both acute or both obtuse or if one of them be a right angle the triangles are equal in all respects.  
 See H. Smith's Prop. E p. 42, Potts's p. 54, Todhunter p. 261.
3. I. 20.
4. I. 21.
5. I. 32.
6. Twelve right angles. I. 15 Cor. 1.
7. 

$A$	$C$	$D$	$B$
$AC^2 = BC^2$			
$= DB^2 + CD^2 + 2CD \cdot DB$			
$AC^2 + CD^2 = DB^2 + 2CD^2 + 2CD \cdot DB$			
$= DB^2 + 2BC \cdot CD$ (II. 3.)			
$AC^2 + CD^2 + 2AC \cdot CD = DB^2 + 4BC \cdot CD$ , since $AC \cdot CD = BC \cdot CD$ .			
i.e. $AD^2 = AB^2 + 4BC \cdot CD$ . (II. 4.) Q. E. D.			
8. Draw  $CE$  perpendicular to  $AB$ . There will be three figures according as the triangle is isosceles, and  $B$  obtuse or acute  
 Then 1st case follows from I. 47. In 2nd and 3rd cases  
 $AC^2 = AD^2 + DC^2 + 2AD \cdot DE$  (II. 12).  
 $BC^2 = BD^2 + DC^2 - 2BD \cdot DE$  (II. 13). But  $BD = AD$  adding  
 $AC^2 + BC^2 = 2AD^2 + 2DC^2$ . Q. E. D.
9. Particular case of II. 14, in which apply I. 42 instead of I. 45

ADMISSION TO HIGH SCHOOLS.—DEC., 1882.

ARITHMETIC.

1. From 935 take 846, explaining clearly the reason for each step.  
 The difference between 82610 and the product of two numbers is seventy million three hundred thousand. One of the numbers is 9402; find the other.
2. Find the amount of the following bill :—36 lbs. 8 oz. beef at 16c.; 16 lbs. 10 oz. mutton at 14c.; 7 lbs. 12 oz. pork chops at 12c.; 15 lbs. 6 oz. turkey at 18c.; 4 lbs. 10 oz. suet at 16c.
3. Find the L. C. M. of 11, 14, 28, 22, 7, 56, 42, 81; and the G. C. M. of 40545, 124083.
4. Prove that  $\frac{1}{2}$  of 1 =  $\frac{1}{3}$  of 3.  
 Simplify  $\frac{\frac{1}{5} + \frac{1}{7} \text{ of } \frac{3}{4} - (\frac{1}{8} \text{ of } \frac{3}{4} - \frac{1}{3})}{\frac{1}{9} - \frac{1}{12}}$
5. Prove that  $1.025 \div .05 = 20.5$ .  
 Find the cost of .0625 of 112 lbs. sugar, when 1 lb. costs .0703125 of 16s.

6. Reduce 45740108 square inches to acres.
7. The bottom of a cistern is 7 ft. 6 in. by 8 ft. 2 in. How deep must it be to contain 3750 lbs. of water, a cubic ft. of water weighing 1000 ounces?
8.  $A$ . runs a mile race with  $B$ . and loses; had his speed been a third greater he would have won by 22 yards. Find the ratio of  $A$ 's speed to  $B$ 's.
9.  $A$ . does  $\frac{2}{3}$  of a piece of work in 6 hours;  $B$ . does  $\frac{1}{3}$  of what remains in 2 hours; and  $C$ . finishes the remainder of the work in 30 minutes. In what time would all working together do the work?
10. By selling tea at 60c. per lb. a grocer loses 20 per cent.; what should he sell it at to gain 20 per cent.?

SOLUTIONS.

1. Book work. See H. Smith's Arith. Can. Ed. p. 13.  
 Product = 82610 = 70800000  
 $\therefore$  Product = 70300000 + 82610 = 70382610  
 $\therefore$  Reqd. factor = 70382610 + 9402 =
2.  $37\frac{1}{2} @ .16 = 5.94$   
 $16\frac{1}{2} @ .14 = 2.82\frac{1}{2}$   
 $7\frac{1}{2} @ .12 = .98$   
 $15\frac{1}{2} @ .18 = 2.76\frac{1}{2} = \$11.96\frac{1}{2}$
3. L. C. M. = L. C. M. of 22, 56, 42, 81 = L. C. M. of  $11 \times 2, 7 \times 2^3, 7 \times 3 \times 2, 3^4 = 11 \times 8 \times 7 \times 81 = 49896$ .  
 $40545 = 5 \times 9 \times 17 + 53$ , of which factors only 9 and 17 will divide 124083  
 $\therefore$  G. C. M. = 153.
4. Take a line 3 units in length, and divide it into 12 equal parts. Hence 1 unit in length will contain 4 of the equal parts and  $\frac{1}{3}$  of a unit in length will contain 1 " " " "  
 $\frac{1}{3}$  of a unit " " " 3 " " "  
 Again  $\frac{1}{3}$  of the whole 3 units in length will contain 3 of the equal parts  
 i.e.,  $\frac{1}{3}$  of one unit in length, and  $\frac{1}{3}$  of three units each contain 3 of the equal parts  
 $\therefore$  they are equal to each other.  
 Expn.  $\frac{\frac{1}{3} - \frac{1}{4}}{\frac{1}{5} + \frac{1}{7} - \frac{2}{3}} \times \frac{9\frac{1}{2} - 1\frac{1}{2}}{\frac{1}{4} + 7\frac{1}{2}} = \frac{1 \times 7\frac{1}{2}}{1 \times 7\frac{1}{2}} = 1$
5. Quotient =  $1.025 \div .05 = 1025 \div 50 = 20.5$ .  
 1lb. costs .0703125 of 16s.  
 $\therefore$  112lbs. cost  $112 \times .0703125$  of 16s.  
 $\therefore$  .0625 of 112lbs. cost  $.0625 \times 112 \times .0703125$  of 16s.  
 $= .06\frac{1}{4} \times 112 \times .0703\frac{1}{8} \times 16 = 700 \times \frac{1}{8} = £35 \times \frac{1}{8} = £39 \frac{1}{8} = 7 \text{ } 6$ .
6. 12 45740108  
 $12 \overline{) 3811675} - 8$   
 $9 \overline{) 317631} - 7 \quad \therefore 7 \times 12 + 8 = 92 \text{ sq. in.}$   
 $1210 \overline{) 35293} - 2 \text{ sq. ft.}$   
 20 roods - 1093 sq. yds.  
 $\frac{4}{121 \overline{) 4372}}$   
 36 perches - 16 sq. yds.  
 Ans. 5ac. " 36per. " 16sq. yds. " 2sq. ft. 92sq. in.
7. 3750lbs. = 60000oz. and  $\therefore = 60$  cub. ft.  
 $\therefore$  depth  $\times 7\frac{1}{2} \times 3\frac{1}{2} = 60$ ; or, depth =  $60 \div 7\frac{1}{2} \times 3\frac{1}{2} = 2\text{ft. } 6\frac{2}{3}\text{ in.}$
8.  $B$ 's distance +  $\frac{1}{3}$   $B$ 's distance = 1730 + 22 yds.  
 $\frac{4}{3}$   $B$ 's distance = 1782 yds.  
 $B$ 's distance =  $\frac{3}{4} \times 1782 = 1386\frac{1}{2}$ .  
 $\therefore A$ 's rate :  $B$ 's rate = 3520 : 2673 = 320 : 243.  
 Otherwise : 22 yds. =  $\frac{1}{20}$  mile  $\therefore$  in 2nd case  $A$  would go  $\frac{20}{20}$  and  $B$   $\frac{20}{20}$  ml.  
 $\therefore$  in 1st case  $A$  would go  $\frac{30}{30}$  and  $B$   $\frac{1}{3}$  of  $\frac{30}{30} = \frac{10}{30}$   
 rates are = 320 : 243.
9.  $A$  does  $\frac{2}{3}$  work in 6 hrs.;  $B$   $\frac{1}{3} \times \frac{1}{2}$  in 2;  $C$ ,  $\frac{1}{4} \times \frac{1}{3}$  in  $\frac{1}{2}$  hr.  
 $\therefore A$  does  $\frac{1}{3}$  work;  $B$   $\frac{1}{6}$  work; and  $C$   $\frac{1}{6}$  work in one hour  
 i.e.  $A, B$  and  $C$  do  $\frac{1}{3} + \frac{1}{6} + \frac{1}{6} = \frac{2}{3}$  work in 1 hr.  
 or " " " " work in  $\frac{3}{2}$  hrs. =  $2\frac{1}{2}$  hrs.
10. 20% =  $\frac{1}{5}$ . Cost =  $\frac{1}{5}$  cost = 60c. =  $\frac{1}{5}$  cost  $\therefore$  cost = 75c.  
 Selling price = cost +  $\frac{1}{5}$  cost =  $\frac{6}{5}$  cost =  $\frac{6}{5} \times 75 = 90c$ .

In whatsoever thing thou hast thyself felt interest, in that or in nothing hope to inspire others with interest.—*Carlyle*.

Thought is the great art; thought can speed faster than the bird flies. The hand of the artisan may lose its cunning, but the discipline of thought is personal property upon which the grave shall have no mortgage.—*Newman Smyth*.

## Special Articles.

## THE SPELLING-BOOK.

To spell, or not to spell? that is the question the Boston supervisors, in a report made to the school board of that city, have answered in the negative. Their argument, briefly put, is this: The "end sought for in any teaching of spelling" is to give the pupil ability to "spell the words of his own vocabulary;" and, again, "to train children to spell correctly common words." "But correctly written word-forms are most easily and surely acquired when the words are used in their natural connections as expressing thought." Therefore is a spelling-book not needed,—indeed, is a positive evil.

We should have little fault to find with this argument provided we could accept the premises. If it be true that the end sought for in spelling is simply ability to spell the ordinary vocabulary of the child correctly, then the best way to teach spelling would be by written composition; in fact, that would be the only sensible way. But it seems to us that this view of the matter is narrow. A spelling-book properly edited, should have a three-fold purpose. Its first object would be, as stated in the argument above, to give to the child the ability "to spell the words of his own vocabulary." But further than that (2), it would afford the simplest and most efficient means of increasing his vocabulary; and (3), it would place in the teacher's hand the best instrument for the training of the child in the use of his native tongue. It is a grievous mistake to make the vocabularies of the mass of children to depend upon the words they may pick up in the street or home. Children bred in cultivated homes, or young readers of many books, are not helped much by a spelling-book. But it must be remembered that the many are not thus bred, neither are they at an early age great devourers of books. These untoward circumstances exist, and the schools are established to supplement these deficiencies. How shall it be done? The Boston supervisors say, by copying passages from the reading lessons, writing sentences from dictation, compositions suggested by daily lessons in geography, history, physiology, etc. This is all very well, as far as it goes. But it places the child's vocabulary at the mercy of a guess, a "hit-or-miss." He may at the end of his school-course have not frequently enough all the words that he ought to know, and be able to use them, and he may not; there is no system, and therefore, no surety. A properly arranged spelling-book would bring to the eye and memory a full vocabulary; and it would bring an orderly arrangement, which is also essential.

Besides, this copying of sentences, pieces of poetry and the like, does not necessarily give to the child a better knowledge of the use of words. It may be a performance quite as perfunctory as the spelling of columns of words. Two things are essential to fix the use of a word in the memory of the child. First, he must have his attention directed to it, and, second, he must use it a great number of times in sentences which he himself has originated. It is, therefore, practically better to have the selected words by themselves in a book than scattered here and there, no one knows where, for the teachers, peradventure, to light upon.

The use or non-use of the spelling-book is also influenced by another fact; namely, that if the child has not learned to spell at the age of twelve or thirteen, the chances are that he will never learn to spell after that. Now, if his knowledge of words is to be limited to the street and the few text-books he may use, and there is to be no systematic effort to increase his vocabulary, he will often have cause for shame when he puts away his childish speech and plays the man.

We must confess that we do not think that the ability to spell correctly is of the highest order. Many valuable and pregnant thoughts have been written in what would be called to-day very poor Queen's English. Spelling is a fashion rather than a science. The spelling-book, therefore, seems to us to be of very little value unless it serves the three-fold purpose which we have already mentioned: and of these three functions, the training in the use of the word is the most important.—*N. E. Jour. of Education.*

## ✓ READING IN THE RIGHT DIRECTION.\*

Dull people take little thought about what they read. In their eyes one book is as good as another. It is not so with bright, quick-witted persons, determined to acquire a measure of self-culture. Their reading moulds their characters, gives method to their thoughts, and begets in them the purpose to overcome all difficulties. The last few years have been prolific of biographies and personal recollections of famous men and women. If we learn anything from the recorded lines of Macaulay, Carlyle, Bushnell, John Stuart Mill, Mary Somerville, and others, it is that in early life they were inspired by reading some one book, and educated by its silent force to a greater degree of mental activity. These books may have been as different in character as were the lives of those who studied them. It seems oftentimes to have been of little consequence what the book may have been. It was enough that it inspired in them a will to do better things. Goethe acknowledged his indebtedness to Goldsmith's "Vicar of Wakefield" just at a critical moment of his mental development, and attributed to this charming little classic much of his subsequent education. "Percy's Reliques" fired the juvenile mind of Sir Walter Scott, and stimulated him to enter upon a literary career. Any good book, whether it be one of the world's great classics, the faithful record of some useful life, or even an obscure work of fiction, may quicken our intellect, influence our hearts, inspire us with hope, and give new strength, courage, and faith. If the book however humble, deals with the chief interests of our daily life, we may get good from it.

Recognizing the importance of a proper choice of books, many wise men have devised schemes to direct the inexperienced reader. As a rule, such well meant but ill-advised courses of reading are dreary failures. It is as difficult to dictate a formal course of mental food for another, as it would be to prescribe a daily programme of physical food. That one man's meat is often another man's poison is as true of reading as it is of eating.

We have not time to read everything, and would not if we could. Need we be ashamed that we have never read a line of Spenser, if we gain daily inspiration from Longfellow? Hume and Gibbon may be closed books to one who takes unceasing delight in Abbott and Headley. Bacon and Montaigne's may be only names to us, but Irving and Charles Lamb are our daily companions.

While we may have a hearty dislike for courses of reading which dictate particular books, we need not discharge as worthless the general suggestions of wise and good men. For instance, Emerson's three rules,—never to read a book that is not a year old; never to read any but famed books; never to read but what you like, are sensible and practical. James Freeman Clarke's rules are equally suggestive,—to read what interests you; to read actively, not passively; to read with order and method.

The advice of such men is merely suggestive and valuable as far as it goes. It is in the nature of things that it does not go far enough. We need something more. Personal help is the best, if we can get it; some good friend to awaken an interest which will

\*A. F. Blaisdell, M.D., in the *Virginia Educational Journal*.

grow into enthusiasm, to stimulate our mental appetite, and inspire us with a love for books. Librarians who know their business, earnest teachers, good news-papers, and thoughtful parents may discharge, oftentimes, the honorable duties of a professor of books and reading. A wise friend who can make practical suggestions suitable to our mental vigor and grasp is our best help for the choice of books. Without such an one we must follow our own inclinations. The important thing is to have an interest in the book we read. It is better to read one of Abbott's histories with interest than to plod through a volume of Hume because we feel it is our duty to do so.

Those people gain little profit from books who are continually asking, what shall I read. If we have a healthy mental appetite, we shall be sure to find in these days enough nutritious mental food. We shall learn to be more select, and to discriminate in due time. At the dedication of a library in his native city, the gallant General Bartlett related the incident of a ragged street Arab, who crept into the Boston public library and asked for a dime novel; the same boy reappeared, a few years later, and asked for his own use for a rare edition of Shakespeare which the library did not contain.

It is no matter if your intellectual capital is scanty. The ablest students of books have begun on the scantiest capital. Webster knew Pope's "Essay on Man" by heart, for it was his only book while at work in a saw-mill one winter. "I used to smuggle a copy of Shakespeare into my pocket when I went to the fields at work, and read it at stolen intervals," says John G. Whittier.

In reading, as in everything else, we should be guided by certain general principles. They should be few and simple. The next thing is to apply these principles in our daily reading. With a little friendly help and encouragement, it is not at all a difficult matter. The aim and the will are the main things, without them our crowded library shelves are but rubbish, and the suggestions of wise men fall upon deaf ears. Allow me to suggest, in the briefest manner, a few general principles, which, if faithfully and systematically applied in our reading, cannot but help us to lay a foundation, deep and strong, for the studies of coming years.

1. *Read the ordinary works of common reference and quotation.*

Only such as every intelligent person should read, at least once in his lifetime. It is a kind of duty as well as a pleasure. These books are to be read as opportunity affords or as a recreation. Select only a few and the best. For example: "Æsop's Fables," "Robinson Crusoe," "Gulliver's Travels," "Pilgrim's Progress," "Vicar of Wakefield" and a few of the widely known and popular fairy and nursery tales.

2. *Read and consult a few standard works for general purposes.*

That is, for general and useful information - to accumulate a reserve fund of knowledge from which to draw for pleasure or profit, as occasion demands. This should include the common works of reference, as the standard dictionaries, cyclopedias, gazetteers, periodicals, etc. Learn how to use and consult these and other works to which you have access. It is an art in itself to know how to use, without loss of time, and effort, works of reference. If you have not already learned this art, get some intelligent person to show you. This principle includes the reading of the most noteworthy topics of current discussion. For instance, a few simple facts about the electric light, Russian Nihilism, the Irish Question, Civil Service Reform and other subjects. In short, read sparingly, and keep well posted on the live topics of the day.

3. *Read and consult a few works for special purposes.*

That is, read and consult works which help to perfect you in your special occupation. A mariner should study his charts and books on navigation and ocean currents; a carpenter, the latest and best

on his trade, and the musician, the best models in music. Whatever your business, improve yourself in it by a systematic and faithful study of its best literature. If you are a student, the study of certain text-books is your daily occupation. Your teacher will guide you to your best helpers. If you are a machinist, bank clerk, jeweller, carpenter, or cotton spinner, some one older and wiser than yourself will only be glad to tell you what to study first to perfect yourself in your special work. Get once started and no more help is necessary. Nowadays books and periodicals are published on every line of industry. They are just as much tools for us to work with as if they were made of steel or wood.

4. *Read a few books for inspiration.*

That is, books to inspire you to do better things. Call them favorite books, if you please. All of us occasionally are tired of our daily routine. We get down-hearted, wearied and discouraged. At times, everything looks "blue." We need then the inspiration of certain books to encourage, cheer and sustain us. What are they? As no two of us are alike, so no two need the same kind of help. In fact, the same person feels the need of different books under different circumstances. It may be one of Whittier's poems, Irving's "Sketch Book," Mrs. Whitney's "Hitherto," "David Copperfield," one of Plutarch's "Lives" or Grimm's fairy tales. It matters little, if we get help, strength and courage, that is enough. It would be as useless to try and make out a list of such books as it would be to dictate what pattern of a new dress or coat to buy.

Let me simply suggest that the six following books are particularly suggestive and full of inspiration to young men: "Character," "Self-Help," and "Duty" by Samuel Smiles; "Self-Culture" by James Freeman Clarke; "Getting on in the World" by William Matthews, and "On the Threshold" by T. T. Munger. It will richly repay every young man to read and re-read these six books. They are full of practical help and wise suggestions. Besides these books and the writings of some favorite poet, young women will find a deal of inspiration in Miss Alcott's "Little Women," Mrs. Whitney's "Hitherto" and Mrs. Goodwin's "Madge" and "Sherbrooke." Here is the point: Have at hand for every day use one or more books which will make you stronger and better.

5. *Read books for a special study of some one thing, i. e., read for a hobby.*

What is meant by hobby reading? Let me explain. The need of a hobby is a natural result of our daily living. Most people are bound down to unremitting monotonous work.

Rest of some kind a busy man must have and will surely take, if he properly understands the value of a sound mind in a sound body. Men of talent, genius and industry, thus wisely recognizing the urgent need of some kind of a change, and having learned from past experience the folly of an indiscriminate indulgence in the many frivolous amusements and popular recreations of the day, naturally drift into some special line of work widely different from their daily business. In other words, they seek for a hobby which, steadfastly pursued, furnishes them with the long looked-for relaxation and congenial occupation.

Aside from the relaxation of the mental and physical tension which a hobby affords, it must of necessity, if judiciously chosen and wisely pursued, contribute to mental and physical improvement. The reason for this is plain. It gives a man something to think of, over and above fagging work. He has less temptation to worry and fret over real or fancied troubles. A contented and hopeful mind, busily occupied, contributes in no slight measure to sound physical health. To this end, a hobby, under proper conditions, answers a most useful purpose.

The objection is sometimes that a hobby must detract from faithfulness or skill in work or trade. No more so than any other

change or recreation. A banker like Robert Dick, a recognized authority on botany; a cobbler like Robert Edward, the great Scotch naturalist; Stedman, the poet banker; Trollope, the post-office clerk and novelist; the Louisville mechanic, the author of a standard work on ferns; a country shoemaker in Vermont, a world wide authority on American lichens. All these and hundreds of other hard-working men and women in every calling of life it is not to be supposed neglected their business because they chose to spend their spare moments on a hobby rather than in frivolous or questionable recreations.

The pursuit of a particular line of work must prove of inestimable value to young people of both sexes. They have an advantage in that they may grow into a hobby, and not select it arbitrarily in maturer years. If such a hobby is intimately allied with their future vocation, so much the better. The young druggist would naturally cleave to chemistry, while the importer's clerk would naturally strive for proficiency in book-keeping or the modern languages. The one great error so often made by young people, and old ones too, oftentimes, is the lack of concentration on some particular line of work or study. The idea is to select the specialty best suited to our needs or tastes—and stick to it.

The vast fields of science and literature are open to all. The humblest may do good to himself and others if he is content to select some remote corner, which abler men have left untilled, and diligently work for a harvest, sure and plenteous. The common excuse is lack of time. But the most diligent have some leisure; at least they make it where idlers have none. "He hath no leisure, says a quaint divine, "who useth it not." Diligent in the pursuit of a hobby, the man of riches or of poverty may find recreation, health and profit and reputation, and this, too, with little risk of exhausting himself, either mentally or physically.

To sum up in a few words. Do not read according to any formal printed course. Let your reading become a natural outgrowth of your own needs. Advice at least is merely suggestive. Strive to get a healthy mental appetite for useful books. Never read at haphazard. Always have a particular object in using books as you would any other tools. Learn the art of thus using books without loss of time or effort. Always keep in mind that only a very few books are to be read through in regular order. Rather read by topics. Select some special line of study, *i. e.*, a hobby, and stick to it. Remember it is not the number of books we read so much as how we utilize them. Be guided by a few simple principles which shall be systematically applied to your daily reading.

Ever before us as we read should stand the words: "Avoid Kubbish."

#### OPINIONS OF EDUCATORS ON CORPORAL PUNISHMENT.\*

"This kind of punishment, provided always that it is not too often administered, or with undue severity, is the proper way of dealing with willful defiance, with obstinate carelessness, or with a really perverted will, so long or so often as the higher perception is closed against appeal."—*Rosenkranz (in Pedagogics as a System).*

"I believe that corporal punishment should always be resorted to as soon as other modes of discipline fail, and I have known some young persons whose consciences were so weak, and who had so much of the animal in them, that the rod would be for them the most beneficial mode of punishment."—*Mrs. Emma Willard.*

"The parent's will is the only law to the child; yet, being steadily regulated by parental affection, is probably more moderate,

equitable, and pleasing to him than any other human government to any other subject. It resembles the Divine government more than any other. Correction, which is sometimes considered the whole of government, is usually the least part of it; a part indispensable, indeed, and sometimes efficacious, when all others have failed."

—*Dr. Dwight.*

"The great objection to corporal punishment is the fact that it excites angry passions, not only in the child, but in the master, and more in the latter than in the former. My own experience teaches me that the effect is almost necessarily bad on the individual who inflicts the pain. It excites a horrible pain in him,—a feeling which we might conceive to belong to evil spirits."

—*George B. Emerson, LL.D.*

"I do not hesitate to teach that corporal infliction is one of the justifiable means of establishing authority in the school-room. To this conclusion I have come after a careful consideration of the subject, modified by the varied experience of nearly twenty years, and by a somewhat attentive observation of all the plans which have been devised to avoid its use, or supply its place."—*David P. Page.*

"It is necessary for a child to learn that the violation of law, whether of school, society, or of God, brings inevitable suffering. The sense of right is so imperfectly developed in children, that one of the ways of impressing upon a child that right is right, and wrong is wrong, is by showing that suffering follows from one, enjoyment and a sense of satisfaction from the other."

—*An English Teacher (in Ed. Reporter).*

"Punishment should never be inflicted except in cases of the extremest necessity; while the experiment of sympathy, confidence, persuasions, encouragement, should be repeated forever and ever."

"He who denies the necessity of resorting to punishment in our schools, virtually affirms two things: (1) That this great number of children scraped up from all places, taken at all ages and in all conditions, can be deterred from the wrong and attracted to the right, without punishment; and (2), that the teachers employed to keep their respective schools are, in the present condition of things, able to accomplish so glorious a work. Neither of these propositions am I at present prepared to admit." *Hon. Horace Mann.*

"It is not wise for school committees and superintendents to formally and publicly forbid the use of corporal punishment in the public schools. (1) Such an act on the part of school authorities would have a tendency to encourage some pupils to violate school rules. (2) During that period of a child's life when he is deriving all his knowledge through the senses, it may sometimes be necessary to teach him the beauty of goodness by a slight punishment applied to his mind through the body. In such a case the amount of punishment would be so small as not to attract public attention. While these things may be true, it is also true that a teacher possessing the qualities requisite to success in teaching will be able, and inclined, to control his pupils by appealing to a higher principle of action than the fear of physical punishment."

—*Hon. F. W. Dickinson.*

"I have no hesitation in declaring my opinion that in some schools, under some circumstances, and with some pupils, the infliction of corporal punishment is needful and wise. The use of it in some cases is no more brutal than is the knife in the hands of a skillful surgeon. The rod in the hands of a wise teacher is less painful in its effects than are the bitter words of some teachers who boast that they never resort to the rod. My doctrine is, in brief, this: let teachers secure, as far as possible, the respect and love of their pupils; let them make their school-rooms places of happy resort; let them govern their schools with kindly means; yet, if at any time they find there is forced upon them the alternative, utter

\* From the Boston Public School.

failure in governing a scholar or the use of the rod, I unhesitatingly say, let the rod be used. As an *ordinary* means of punishment, I earnestly deprecate a resort to corporal punishment, and I believe that the teacher who punishes in this way frequently may well question his fitness for the position he occupies."—*D. B. Hagar, Ph.D.*

"There are occasions, however, in which the cane must be resorted to. We have no sympathy with objections to flogging on the score of its cruelty or indignity, provided an interval elapse between the offence and the chastisement. It is much more merciful to castigate a boy than to wear his nerves to exhaustion by appeals to sentiment, affection, or duty, which minister to the vanity of the hard, and the morbidness of the gentle and sensitive. Punishment should be prompt, sharp, decisive, and there end; the object being not to inflict pain, but to deter from future offences, and to restore the moral equilibrium of the offender and the offended school-conscience. This object once attained,—the more expeditiously it is attained the better,—no more should be heard from either offence or punishment. A teacher or parent should never bear grudges. The young interpret such exhibitions as sulkiness and injustice, and do not fail to learn the lesson for themselves. A boy should be allowed to start fresh from punishment, and without stain.

—*Prof. S. S. Laurie, England.*

#### THE OVERWORK QUESTION.\*

Herbert Spencer's criticisms upon the overwork of the American people have called forth a volume of dissent from several of his own countrymen, whose observations in America are much wider than Mr. Spencer's could possibly be, as also from the American press. This old-time and somewhat stale charge is meeting a much sounder discussion than was formerly given to it. It is an instructive illustration of the maxim, "Catch your hare before you cook it;" be sure of your fact before you offer to explain it. Before it can be established as a fact that Americans, as a people, overwork, it must be settled what is over-work. Is it a question of the time spent in labor? American mechanics and common laborers work usually ten hours a day, with frequent days off, and holidays. Our merchants and business men work from six to eight hours, with frequent lulls in trade; and long annual vacations. Our lawyers and physicians and other professional men work according to their popularity and the demands made upon them. Many, doubtless, work more hours than they ought; but we suspect that the great majority would be glad to fill up with business many of the idle hours they now have. Our teachers are employed from two to six hours a day with the work of instruction, and give as much time to study as they find convenient. Many of our women, doubtless, work more hours than are good for them; but in the middle and higher walks of life they have as much leisure as they choose to take.

If intensity of work is meant, it is probably true that the Americans work with more energy and rapidity than Europeans of the same classes. It is asserted that American mechanics accomplish more in the same time than Europeans, owing partly to their superior intelligence, and partly to the greater energy and spirit with which they work. American business men are also somewhat famous for their pushing enterprise, due, doubtless, to the greater opportunities offered by the conditions of the country, and the greater prizes for successful efforts. But intensity in work is largely a question of temperament, and it is possible that our drier climate may favor a more active temperament than that of England, or the continent of Europe. We incline to the belief that Americans work with more vigor when they work at all; the slow, sluggish movements, the work without heart and without hope, so often seen among the

working classes, of Europe, seem infinitely dull and tiresome to the average American. He desires to see his task finished and get the good of it.

If brain work is meant, then it is still more difficult to find the truth. The human mind, and presumably the brain, is in perpetual action at least during the waking hours. And this action is as intense in the hours of recreation as in those of study or labor. Nor does the healthy brain ever have the sense of weariness so common to the muscular system. A "tired mind" is a thing unknown. What is called mental weariness will always be found on careful inquiry to be a physical sensation. It is those mental employments which necessitate long confinement of the body to one position, and shut out the free air, which produce what is called weariness of mind. The merchant who sits over his books three or four hours rises weary and exhausted; but let him spend the same time on his feet engaged with the most engrossing business, moving from place to place in the fresh air, and he may complain of bodily weariness, but never of a tired mind.

The truth is that what is called mental over-work is over-confinement and bad air. Children do not die of too much study, but of too long sitting and of ill-ventilated school-rooms. Put the same children among their fellows on the play-grounds or in the fields, and they will keep tongue and brain busy all the day, year in and year out, without the loss of a particle of vigor or of fresh color. Whenever, in order to think or study, we deprive ourselves of bodily exercise, and shut ourselves up in close and unventilated rooms, we suffer not from over action of the mind, but from inaction of the body, and from that oxygen starvation which steals more lives than all other causes put together. The mental worker is also liable to interfere with his bodily health, by injury to the digestive functions. He fails in the exercise necessary to healthful digestion, and draws blood to the brain which is needed by the stomach. The common curse of the man of sedentary pursuits is the dyspepsia.

Over-work must be work which tasks the powers beyond their ability to repair losses. So long as the system recuperates perfectly after each effort there is no over-work. In the growing period, the recuperation must be something more than repair; it must include the growth in addition. And when it is reflected that work, or at least vigorous exercise, is an indispensable condition of all healthful growth, and of perfected strength, we shall find reason to believe that more Americans suffer from under work than from excessive exertion. Many of the slender forms and pale faces around us would grow rugged and ruddy if in place of the lives of lazy inaction, which so weakens them, there should come lives of vigorous and hearty work.

#### NO "CASE" IN ENGLISH.

We now propose to prove that there is no property of the English noun that can, with any propriety whatever, be called "case." Out of something over a hundred grammars, we make the following extracts from which it will be seen that the "authorities" are by no means united in their opinion as to what "case" is. In answer to the question, What is case? we are told:

Case in English Grammar means condition.—Clark's *Norm.*, p. 85.

The word means ending.—Boltwood, p. 101.

It is the relation of a noun or pronoun to other words.—Harvey, p. 31; Kerl's *Comp.*, page 144; Barton, p. 20.

It is the state or condition of a noun with respect to the other words in a sentence.—Bullion, p. 39.

It is that property of a noun that denotes its relation to other words.—Pinneo; p. 35; Raub, p. 40.

\* John M. Gregory, LL.D., in the *Chicago Present Age*.

It is that property of the noun which depends upon its relation to other words.—Chandler, p. 14.

It is that modification of nouns and pronouns indicated by their relation to other words.—Clark's Norm, p. 85.

It is that modification which distinguishes the relation of nouns and pronouns to other words.—Brown, p. 52, Burt, p. 75.

By the *Case* of a noun is meant the relation in which it stands to other words, and to the sentence.—Boltwood, p. 101.

It is that property of nouns and pronouns which shows how they are used in the construction of sentences.—Kerl's Common School, p. 95.

The simple word and suffix are together called a case.—Swinton, p. 34.

It is the condition of a noun (i. e., relation to other words).—Clark's Begin., p. 74.

The case of a noun or pronoun depends upon its relation to other words.—Vickroy (1870), p. 69.

Case is *form*, not *relation*; nevertheless, the form is determined by the relation.—Vickroy, 2d Circle, p. 48 (1881).

Case denotes the relation of a noun or pronoun to other words.—Greene, p. 53; Wells, p. 47. (1865).

Case is relation, etc.—Wells, p. 42 (1880).

It is that property which distinguishes the relation of nouns and pronouns to other words in a sentence.—Quackenbos, p. 51.

It is a distinction based on the relation, etc.—Kerl's Shorter Course, p. 85.

It signifies the relation which nouns have to other words.—Butler, p. 28.

It means the different state, situation, or position nouns have in relation to other words.—Kirkham, p. 41.

It denotes the relation which a noun sustains to other words in the sentence, expressed sometimes by its termination and sometimes by its position.—Fowler, p. 26.

Cases are forms of words used on account of the relations the words hold to other words.—Hinds' Topics, p. 43.

In some languages the form of nouns and pronouns determines their case. Not so in English. All nouns have the same forms. Clark's Begin. p. 76.

Case is a mode of inflection used to show the relation of a word to another word.—Colegrove, p. 84.

I deem the essential qualities of case in English to consist, not in the changes and inflections produced on nouns and pronouns, but in the offices which they perform in a sentence, by assuming different positions in regard to other words. In accordance with this definition these cases can be easily explained on reasoning principles founded in the nature of things.—Kirkham, p. 41.

Case [is] the form of substances in English, by which their relations to the other parts of the sentence are indicated.—Webster's Dictionary.

The use which is made of a noun or the office which a noun has in the construction of a sentence, is called the *case* of a noun.—Cruttenden, p. 157.

Case is a rhetorical attribute, which the noun derives from its use or office in the sentence.—Cruttenden, p. 200.

It is a change in the termination or situation of nouns.—Long, p. 12.

In the Latin, Greek, German and many other languages, the cases of nouns are determined by their terminations. But, as English nouns have no inflections, except to form adjuncts, the cases are determined only by the offices of nouns in sentences.—Clark's Normal, p. 85.

Case means little more than use in connection with other words. Abbott, How to Parse, p. 29.

The word case properly means ending, and was introduced into our language from a language in which different relations are indicated by different endings. There is no necessity for retaining it when speaking of nouns.

Those who use the name of case for the relations call the subject the nominative case; the object of a verb, or the subsequent of a preposition, the objective case; and a noun in the possessive relation, the possessive case, calling all other relations the independent case. But it is better to drop the term "case" in analyzing, and to speak of a noun as subject, object, subsequent, possessive, or as absolute, that is without *grammatical relation*.—Boltwood, p. 101.

Now, from the foregoing quotations, we see that there exists among our grammarians a very great diversity of opinion as to what case in English is. Some tell us that case is "relation;" some, that it is a "property that denotes relation;" some, a "property that depends upon relation;" some a "modification indicated by relation;" some, a "modification which distinguishes relation;" some, a distinction based upon relation;" some that it is "state or condition;" some that it is "form;" some that it is "ending;" some that it is the "use or office-work" of a noun or pronoun; some, that it is "a rhetorical attribute" which the noun derives from its "use or office-work;" some that it is "position or situation;" and some "that there is no necessity of retaining it, because the English noun is without grammatical relation!"

Says Mr. Kirkham: "I think that five grains of common sense will enable any one to comprehend what is meant by case. Its real character is extremely simple; but in the different grammars it assumes as many meanings as Proteus had shapes. The most that has been written on it, however, is mere verbiage. What, then is meant by case? . . . It is *position or situation*. This is clear."

Surely amid such a variety of viands, the grammatical epicure ought to be able to find something that will satisfy his palate!

Now, the foregoing different views, as well as several minor shades of opinion, are offered us by as many different authorities. If we adopt any one of them we shall be at variance with many of the others, while if we adopt the view of one particular authority—Mr. Boltwood—we shall throw case out of English grammar entirely. "When doctors differ," etc.

If we now examine some of these authors separately, we shall see how consistent each grammarian is with himself.

Harvey says: "Case is the *relation* of a noun or pronoun to other words." He also says, "The Absolute case is the use of a noun independent of any governing word."

Now, how can a noun that is used independently be said to sustain any grammatical relation to any other word? Or, if it possesses any relation, must it not be an independent relation? And what kind of a relation is an *independent* relation? What kind of a dependence is an independent dependence? Again, if case is the relation of a noun to some other word, would it not follow that a noun which has no such relation can have no case? And why does it not follow that Mr. Harvey's "Absolute" case is, according to his own definition, *no case at all*? It seems to us rather a *difficult* case! Moreover, on pp. 32 and 108, he gives us the "Objective case without a governing word."

Now the noun in each of these conditions—"absolute" and "objective"—is employed only to name objects, and in each instance, is used "without a governing word." What then, in these instances, is the radical difference between Mr. Harvey's "objective" and his "absolute" case? Both are without government, and, therefore, independent. We might present our argument thus:

It takes *relation* to make case.

Nouns independent of government have no relation.

*Ergo*, Nouns independent of government have no case.

What Mr. Harvey calls the "absolute" case, Mr. Raub calls the "Nominative Case Independent," and says: "A noun is in the Nominative Case Independent when it is independent of any other word in the sentence."—Raub. p. 42.

Mr. Bullions uses the term "Nominative Absolute," and on p. 218 says: "A substantive whose case depends on no other word is put in the Nominative Absolute or Independent, because, though always in the form of the nominative, yet it has no grammatical dependence on any word in the sentence." Also, on p. 40, he says: "Words not in relation can, strictly speaking, have no case."

Here is a plain acknowledgement of the very conclusion which we just reached, viz., that words not in relation, i.e., used independently—without government—can have no case. And hundreds of other English grammarians have virtually acknowledged as much. But why do these gentlemen retain the term "case" in such instances? Mr. Bullions makes answer for the whole corps by saying that "for convenience in referring to them, this distinction is, in some instances, retained!"

Such extremities as this are our grammarians pushed in their endeavors to bolster up their tottering system! Retaining a thing that does not exist for convenience's sake!

But, furthermore, there are some other authorities who substantially agree with M. Harvey in his definition of the case, but who present their statement in different diction, and tell us that "case is the relation which a noun or pronoun sustains to other words in a sentence." This statement is substantially given by Quackenbos, Fowler, Kerl, Barton, Smith, etc. Kirkham and Cruttenden tell us that "the case of a noun or pronoun is its use or office-work in a sentence." It will be noticed that Mr. Harvey, in his definition of case does not use the words, "in a sentence," though we presume that he intended to imply as much.

Now, the point we wish to make is that these gentlemen tell us that case is the relation of a noun or pronoun to some other word in a sentence, and not out of a sentence: i.e., a noun can have case only when it is used in a sentence. It will, therefore, follow that out of a sentence, a noun can have no case. But in the expression, "Going down hill into the river" (which expression is not a sentence), every grammarian in Christendom would tell us that the words, "hill" and "river," are in the Objective case, after the prepositions, "down" and "into," respectively. So that, after teaching that "case" can not exist outside a sentence, these gentlemen would flatly contradict themselves by teaching that "case" does exist outside a sentence!

But, to give these grammarians a "boost" in their trouble, we will permit them to "amend," and to say: "Case is the relation of a noun to other words in a sentence, or phrase." That is, it takes relation to some other word to constitute case, and words not used in some sentence (or phrase) sustain no such relation—are used independently—and, therefore, have no case. If, for example, we take the word, "John," and ask these grammarians what case it is in, they will say that it is in no case at all, that it must be put into some sentence or phrase, and then it will have case. And yet these same grammarians persist, with an unyielding tenacity, in pressing upon us their "Absolute," "Independent," "Nominative Absolute," or "Nominative Independent" case, admitting at the same time that the words for which they thus claim these case names do not belong to any sentence or phrase, and, therefore, according to their own definitions, have no case!

The syllogistic form of our argument would run thus:

Case is the relation of a noun to some other word in a sentence (or phrase).

Nouns not in a sentence (or phrase) sustain no such relation.

Ergo, Nouns not in a sentence (or phrase) have no case.

Case—and yet no case; no case—and yet case!

Why invent a name for a case when no such thing as case exists? Why invent a name for a relation when no relation exists? Or is it an independent—a negative relation? What sense is there in such tangle! Where can there be found—except in English grammars—such a jumbled up mass of contradictions and absurdities!

This much respecting those grammarians who tell us that case is "relation." There are others who tell us that case is "state or condition." If by these terms is meant something different from what others mean by "relation," then we are unable to comprehend just exactly what these writers do really mean. But if by "state or condition" is meant "relation," then these "state-or-condition" men are in the same boat with the "relation" men.

Messrs. Brown, Burt & Co. tell us, on the other hand, that case is the "modification" of a noun that "distinguishes" its relation to other words.

Now, what these gentlemen mean by "modification," we confess our inability to understand. If by "modification" is meant "relation," then we have case defined to be "that relation which distinguishes relation"—a very clear thought, indeed! If by "modification" is meant "state or condition," then we must go a little further, and beg to be informed what is meant by "state or condition." If by "modification" is meant "ending" or "termination," then we can not see how those grammarians who adopt this definition, can make out more than two (2) cases at the most; for, the so-called *Nominative* and *Objective* have but one and the same ending, and the so-called *Possessive* must furnish the other ending. Yet, Mr. Brown gives us three cases, and Mr. Burt four.

In closing, we again call attention to the motley mass of unexplained and conflicting views of case herein presented. Mr. Kirkham there tells us that "five grains of common sense will enable any one to comprehend what is meant by case." As we have only four grains, we shall have to take a back seat. We think, however, that M. Kirkham gives utterance to one indisputable truth, when, speaking of case, he says: "In the different grammars it assumes as many meanings as Proteus had shapes!"—*Iconoclast in Pittsburgh Educational Review.*

## Examination Questions.

### SPECIAL INTERMEDIATE EXAMINATION.

DECEMBER, 1882.

#### ENGLISH GRAMMAR.

TIME—THREE HOURS.

1. Strong Son of God, immortal Love,  
Whom we, that have not seen thy face,  
By faith, and faith alone embrace,  
Believing where we cannot prove;

Thine are these orbs of light and shade;  
Thou madest life in man and brute;  
Thou madest Death; and lo, thy foot  
Is on the skull which thou hast made.

- (a) Analyze the whole passage fully.
  - (b) Parse the words in italics.
  - (c) Write out the whole passage in prose, so as to show that you thoroughly understand the meaning.—[Note—The second value is for the literary form of the answer.]
  - (d) Explain the allusions in line 5, and in the last two lines.
  - (e) Derive *faith*, *embrace*, *prove*, *orbs*, *brute*.
  - (f) In what respect is the rhyme of lines 6 and 7 faulty?
2. Correct any errors in the following sentences, giving your reasons for each correction:—

(i) The *Telegraph* might certainly have been expected to have outgrown the idea that either of the great American parties acknowledge hostility to England as its ruling principal.

(ii) The more British Columbia becomes known, the more extraordinary appears its wonderful resources.

(iii) The Northern and North-Western Railway have issued a new time table.

(iv) While the plaintiff was being examined, his sister, who was setting in the court-room, fell screaming to the floor, laying there insensible for some minutes.

(v) A father, as well as his son, were terribly injured by the explosion of a waggon-load of gunpowder near Jackass Mountain, which they were conveying to the railway works.

(vi) Addison contributed to the last volume of the 'Spectator' 24 numbers, many of them being the finest of his essays.

(vii) If the privileges to which he has an undoubted right, and has so long enjoyed, should now be wrested from him, would be flagrant injustice.

(viii) I shall live hereafter suitable to my station.

(ix) I should be obliged to him, if he would gratify me in this matter.

(x) This wheel will not turn; I must send it to the wheelwright to be fixed.

(xi) Who learned you to fall trees so good?

(xii) Those men who have not abandoned their hardly acquired knowledge, are anxious to do something to show that their devotion to letters are genuine.

(xiii) Etymologically, 'politics' mean the science of citizenship.

(xiv) Is it not a plain hint to us that where denominational colleges are compelled to make strong appeals for assistance, that we will have to make vigorous efforts for to secure further aid?

3. Distinguish between *ingenuous* and *ingenious*, giving the abstract substantive formed from each of these adjectives; also between *contemptuous* and *contemptible*, *surcey* and *surety*; *désert*, *desert* and *dessert*; *conjure* and *conjure*.

4. Accentuate—*theatre*, *catastrophe*, *condolence*, *precedent*, *accessory*.

5. Spell phonetically—*subtile*, *ironmonger*, *gauge*, *constable*, *sergeant*.

6. Give the full etymology of the following words:—*trespass*, *journey*, *lord*, *veal*, *verdict*, *kerchief*, *feat*, *savage*, *hotel*, *pilgrim*.

7. Give five words of Greek origin (not ending in *-ology*).

8. Give five derivatives of each of the following Latin words:—*capio*, *fero*, *gradus*, *loquor*, *creo*, *cado*.

9. Give three instances of double plurals in English substantives, with the meaning of each form; and three of nouns plural in form and singular in signification.

10. Complete the elliptical clauses in the following sentences:—

(i) I had rather die than endure such a disgrace.

(ii) He is better to-day than yesterday.

(iii) I'd rather be a dog and bay the moon, Than such a Roman.

11. Punctuate the following sentence:—While we earnestly desire said he the approbation of our fellow men and this desire the better feelings of our nature cannot fail to awaken we should shrink from gaining it by dishonourable means.

Values:—1 (a) 16, (b) 6, (c) 9+4, (d) 4, (e) 5, (f) 1; 2 (i) 4, (ii) 2, (iii) 4, (iv) 6, (v) 4, (vi) 2, (vii) 2, (viii) 2, (ix) 2, (x) 2, (xi) 6, (xii) 2, (xiii) 2, (xiv) 6; 3, 13; 4, 5; 5, 5; 6, 10; 7, 5; 8, 30; 9, 6; 10 (i) 2, (ii) 2, (iii) 4; 11, 7.

## ENGLISH LITERATURE.

TIME—TWO HOURS AND A QUARTER.

The value for each question, under the heading M., is for the matter of the answer; the additional value, under F., is for its literary form.

### I.—GOLDSMITH'S DESERTED VILLAGE.

1. Beside yon straggling fence that skirts the way,  
With blossomed furze unprofitably gay,  
There, in his noisy mansion, skilled to rule,  
The village master taught his little school;  
A man severe he was, and stern to view,  
I knew him well, and every truant knew;  
Well had the woding tremblers learned to trace  
The day's disasters in his morning face.

(a) Explain: *unprofitably gay*; and the last two lines.

(b) *blossom'd*. How is the past part, here used? Substitute the more usual form.

(c) Parse *skill'd*, in the 3rd line, and show how the position of the words in this and in the 6th line causes ambiguity.

(d) Parse *view*, in the 5th line.

2. Quote the first ten lines of the address to Poetry at the end of the poem.

3. What are the chief characteristics of Goldsmith's poetry? Name his chief poetical and dramatic works.

4. "Trade's unfeeling train

Usurp the land, and dispossess the swain."

Why is the verb plural?

### II.—COWPER'S TASK. Bk. III.

1. All flesh is grass, and all its glory fades  
Like the fair flow'r dishovelled in the wind,  
Riches have wings, and grandeur is a dream,  
The man we celebrate must find a tomb,  
And we that worship him, ignoble graves.  
Nothing is proof against the gen'ral curse  
Of vanity, that seizes all below.  
The only amaranthine flow'r on earth  
Is virtue, th' only lasting treasure, truth.

(a) Parse *graves*, *all below*, *truth*, and fill up the ellipsis in each case.

(b) Give the meaning and derivation of *dishovell'd*, *gen'ral*, *vanity*, *amaranthine*, *treasure*.

(c) Explain fully the meaning of the passage from "The man we celebrate" to "virtue."

2. Explain the italicised words in the following passages, and state in what connection they occur:—

(i) In whom

Our British *Themis* gloried with just cause,  
Immortal *Hale*!

(ii) Hideous nurseries of the *spleen*.

(iii) Like a gross fog *Bacotian*.

(iv) They form *one social shade*, as if convened  
By magic summons of th' *Orphean lyre*.

3. Sketch briefly the life and character of Cowper.

### III.—ADDISON'S SIR ROGER DE COVERLEY.

1. After having despatched all our country matters, Sir Roger made several inquiries concerning the club, and particularly of his old antagonist, Sir Andrew Freeport. He asked me, with a kind smile, whether Sir Andrew had not taken the advantage of his absence to vent among them some of his republican doctrines, but soon after, gathering up his countenance into a more than ordinary seriousness, 'Tell me truly', says he, 'don't you think Sir Andrew had a hand in the Pope's procession?' But without giving me time to answer him, 'Well, well,' says he, 'I know you are a wary man, and do not care to talk of public matters.'

(a) Parse the words in italics.

(b) What is meant by the "Pope's procession?" In what year did the particular procession here referred to occur, and what was the cause of the greater prominence given to the custom in that year?

2. Sketch the principal characters of the Spectator Club, besides Mr. Spectator and Sir Roger.

3. (a) Give an outline of the history of newspapers in England, down to the appearance of the Spectator, and show how this and its immediate predecessor differed from the newspaper of that day.

(b) Mention Addison's principal collaborator in the Spectator, and give some account of him.

Values:—I (a) M 4, F 2, (b) M 2, (c) M 3, (d) M 2; 2 M 5; 3 M 4, F 2; 4 M 2; II. 1 (a) M 6, (b) M 10, (c) M 6, F 2; 2 (i) M 4, (ii) M 2, (iii) M 2, (iv) M 4; 3 M 5, F 8; III. 1 (a) M 3, (b) M 4, F 2; 2 M 6, F 2; 3 (a) M 4, F 2, (b) M 4, F 2.

## GEOGRAPHY.

TIME—TWO HOURS.

1. In what countries are the sources and mouths of the Elbe; the Mouse, the Douro, the Rhine, the Rhone, the Brahmapootra, the Yukon, the Columbia, the Colorado, the Amazons, the Vistula, and the Niemen.

2. State in detail what you would expect to see if you made a coast voyage around the Mediterranean.

3. Draw a rough map of the British Isles, marking the courses of the Thames, the Severn, the Trent, the Tyne, the Tweed, the Clyde, the Shannon, and the Tay, and the positions of Belfast, Dublin, York, Cork, Glasgow, Aberdeen, Dundee, Edinburgh, Liverpool, Manchester, Bristol, London, and Birmingham, and of the smaller islands.

4. Compare the physical characteristics of Africa and South America.

Values:—1, 24; 2, 28; 3, 28; 4, 20.

### DICTIONARY.

TIME—THIRTY MINUTES.

*Note to the Presiding Examiner.*—This paper is not to be seen by the candidates. It is to be read to them *three times*—*first*, at the ordinary rate of reading, they simply paying attention, to catch the drift of the passage; *second*, slowly, the candidates writing; *third*, for review.

A sudden irruption into Belgium, as it was more suited to the daring genius of Napoleon, and better calculated to encourage the ardour of his troops, afforded him also a more reasonable prospect of success. He might by a rapid movement, direct his whole force against the army either of England or of Prussia, before its strength could be concentrated and united to that of its ally. He might thus defeat his foes in detail, as he had done upon similar occasions, with the important certainty, that one great and splendid victory would enable him to accomplish a general levy, and thus bring to the field almost every man in France capable of bearing arms; an advantage which would infinitely more than compensate any loss of lives which might be sustained in effecting it. Such an advantage, and the imposing attitude which he would be thereby entitled to assume towards the allies, might have affected the very elements upon which the coalition was founded; and afforded to Bonaparte time, means, and opportunity, of intimidating the weak and seducing the stronger members of the confederacy.

### COMPOSITION.

TIME—ONE HOUR AND A QUARTER.

#### I.

Write out the sense of the following poem in good prose, in your own words:—

O, Maid of Isla, from the cliff,  
That looks on troubled wave and sky,  
Dost thou not see yon little skiff  
Contend with ocean gallantly?  
Now beating 'gainst the breeze and surge,  
And steeped her leeward deck in foam,  
Why does she war unequal urge?—  
O, Isla's maid, she seeks her home.

O, Isla's maid, yon sea-bird mark,  
Her white wing gleams through mist and spray  
Against the storm-cloud, lowering dark,  
As to the rock she wheels away?—  
Where clouds are dark and billows rave,  
Why to the shelter should she come  
Of cliff, exposed to wind and wave?—  
O, maid of Isla, 'tis her home.

As breeze and tide to yonder skiff,  
Thou'rt adverse to the suit I bring,  
And cold as is yon wintry cliff,  
Where sea-birds close their wearied wing  
Yet cold as rock, unkind as wave,  
Still, Isla's maid, to thee I come;  
For in thy love, or in his grave,  
Must Allen Vourich find his home.

#### II.

Write a composition on one, and only one, of the following subjects—

- The Scientific Discoveries of the 19th Century.
- Is Ambition a Vice or a Virtue?
- Does Morality Advance as Civilization Advances?

(d) "Peace hath her victories no less renowned than War."

*N. B.*—One of the above subjects must be attempted, besides the paraphrase of the poem.

### HISTORY.

TIME—TWO HOURS AND A HALF.

- Sketch the career of Hannibal, giving the localities, dates and results of five of his chief battles, and the date and circumstances of his death.
  - Define the relations of the Italian races with the city of Rome from the end of the Second Punic War to the death of Sulla.
  - Give an account of the struggle between Marius and Sulla, and its results.
  - Show how the Wars of the Roses increased the power of the Crown on the one hand, and of the people on the other.
  - Describe the character of the reign of Charles II., and state what causes led to his restoration.
  - What principles of Constitutional Government were established by the Revolution?
  - State the objects and result of Lord Durham's mission to Canada.
  - Give the principal provisions of the Canada Constitutional Act of 1791, and estimate its results.
  - Name the five most important military engagements of the War of 1812-14, and state the origin and result of that war.
- Values—1, 10; 2, 10; 3, 10; 4, 10; 5, 10; 6, 10; 7, 10; 8, 10; 9, 10.

### BOOK-KEEPING.

TIME—ONE HOUR AND A QUARTER.

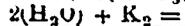
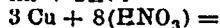
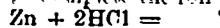
- Explain the use of the Day Book, Trial Balance, Cash Book. How do you transfer an entry from one book to another?
  - State the different kinds of Accounts; and explain the process of closing the Profit and Loss Account.
  - Define the terms Assignee, Bonded Goods, Bounty, Invoice.
  - Write out the form of (1) a Promissory Note, (2) a Bill of Exchange. What do you understand by "endorsing" a Note?
  - What are the advantages of Double Entry?  
Make the proper entries for the following—  
(a) Purchased *Mdse.* amounting to \$1000, for which I paid in cash \$800, and for balance my note, due 3 months hence.  
(b) Borrowed \$2000 from A.B. for 4 years, for which I pay interest half yearly, at the rate of 6% per annum.  
(c) Sold goods amounting to \$400, for which I received \$200 cash, and for balance note due 6 mos. hence.  
(d) Note of \$200 overdue 2 months; interest at 6% per annum.
- Values:—1, 16; 2, 14; 3, 16; 4, 12; 5, 22.

### CHEMISTRY.

TIME—ONE HOUR AND A HALF.

- What experiments would you perform to demonstrate the properties of Chlorine?  
(In answering this question employ diagrams of apparatus used to illustrate the description of your experiments.)
- In the evolution of Ammonia from Liquor Ammoniac by heat aqueous vapour passes over with the gas. Describe a method for drying the Ammonia.
- Describe and figure the apparatus used for the evolution of Hydrogen from Zinc and Sulphuric Acid.
- What takes place when a cylinder filled with Nitrogen Dioxide is inverted over a cylinder filled with Oxygen? Write the equation representing the reaction.
- How much Potassium Chlorate is required to furnish 12 litres of Oxygen measured at 0°C. and 760<sup>mm</sup> P.?
- Explain a method of preparing the amorphous variety of Sulphur.

7. Complete the following equations.



8. (i) Compare the properties of Oxygen with those of Nitrogen Monoxide.

(ii) What test may be employed to distinguish between these two Gases.

Values:—1, 20; 2, 10; 3, 8; 4, 10; 5, 12; 6, 10; 7, 12; 8, 10+8,

## Practical Department.

### THE PROBLEM OF TEACHING TO READ.

BY J. M. D. MEIKLEJOHN, M.A.

(Continued from last month.)

It will be seen that this irregularity and want of keeping faith fall chiefly upon the vowels. We have in our language 104 different ways of representing to the eye 13 vowel-sounds. Let us take a few of the most striking cases. Short *i* is represented in our English notation by 13 symbols: short *i* by 12; long *i* by 11; long *ī* by 13; short *ū* by 11; long *ū* by 13; short *ū* by 13, and long *ū* by 12. We, who are grown up, have been so long accustomed to these things, that we do not notice them; but the child has to notice them, and he suffers from them more or less—and generally more.

The digraphs, too, perplex and confuse the child. The oddest of them all is *gh*, which we use in the writing of seventy five words. But in sixty-three of these we ignore the *gh* entirely: and in nine of them we make an *f* of it. The story of the *gh* is comical enough. As nearly as I can make it out, it is this: The Normans, who had been learning French for several generations, had as a consequence been throwing aside and leaving unuttered their native guttural sounds. Perhaps, in some cases, the muscles of the throat, which are employed to utter guttural sounds, became atrophied; but in any case it had grown to be the 'fashion' not to pronounce throat-sounds; and the English or Saxon scribes wrote them down faithfully, but quite simply. They wrote *light*, *might*, and *night*—as *liht*, *mihht*, *niht*; and the *h* had a more or less guttural sound. But the Normans declined to pronounce this *h*; they either could not or would not. Then said the Saxon scribes: 'Oh! you fine Norman gentlemen will not sound our language as it is; you ignore our gutturals; we will make you sound them.' So they strengthened the *h* by putting a *g* in front of it; just as a farmer might strengthen a hedge by putting a strong wooden fence in front of it. But the Normans respected the one no more than the other; *gh* is in fact far more difficult to sound than simple *h*; and accordingly they now ignored both. But the *gh* remains—a moss-grown boulder from an ancient glacial period, when gutturals were precious, and men still believed in the truthfulness of letters.

The work done by the letter *e* is perhaps the most remarkable instance in our language of a union in one letter of real work with superfluous busybodiness. Like the learned counsel in Chaucer's Prologue:

And yit he seemd busier than he was.

There is—

- (1) Its usual work before consonants, as in *wet* and *went*.
- (2) Its use to lengthen the preceding vowel, as in *mate*.
- (3) The doubling of itself to make its own long sound as in *feed*.
- (4) Its combination with *a* for the same purpose, as in *meat*.
- (5) Its combination with *a* for the opposite purpose, as in *bread*.
- (6) Its coming after *i* to make a long sound, as in *pie*.
- (7) Its coming before *i* for the same purpose, as in *eider*.

(8) Its combination with *i* for a quite different purpose, as in *piece*.

(9) Its combination with *i* to make its own long sound as in *receive*.

(10) Its going before *w* to make a long *u* sound, as in *few*.

(11) Its going after *u* for the same purpose, as in *due*.

(12) Its going after *u* to make a quite different sound, as in *true*.

(13) Its following *o* to make a long *o*, as in *foe*.

(14) Its preceding *o* for the very same purpose, as in *yeoman*.

(15) Its combination with *y* to make a long *a* sound, as in *they*.

(16) Its combination with *y* for no purpose at all, as in *money*.

(17) Its combination with *i* to make a long *a* sound, as in *vell*.

(18) Its combination with *i* to make its own short sound, as in *heifer*.

(19) Its appearance at the end of a word with no purpose at all, as in *couple*.

(20) Its combination with *d* with no purpose, as in *walked*.

By this time, the child can hardly be expected to know what an *e* is and what it is not.

The following are a few more of the

#### CONTRADICTIONS OF E.

1. { Dream } Here it is long and also short.  
{ Bread }
2. { Pie } Here it lengthens and also shortens.  
{ Brief }
3. { Pie } Here it comes after and also before for the same  
{ Eider } purpose.
4. { Duo } Here it has an effect on the *u*, and also no effect  
{ True }

Nothing can be more confusing and distressing to the young learner, unless the fairy *Good Order*, summoned by the Teacher, comes in to assort these tangled threads and intertwined distractions.

It may be useful to sum up all the above statements in the form of a concise

#### BILL OF INDICTMENT AGAINST OUR ENGLISH NOTATION.

1. An Alphabet of 26 letters is set to do the work of 45 sounds.
2. In this Alphabet of 26 letters, there are now only 8 true and fixed quantities.
3. The remaining 18 have different values at different times and in different positions; and sometimes they have no value at all. In other words, they have a topographical value.
4. Some of these 18 letters do—in addition to their own ordinary work—the work of three or four others.
5. A Vowel may have from 20 to 80 functions in our English Notation; a Consonant may have two or three.
6. There are 104 ways of representing to the eye 18 vowel-sounds.
7. Six of these vowel-sounds appropriate to themselves 75 ways of getting printed.
8. In the most purely English part of the language, the letters are more often misleading than not. In the word *cow* or *they*, for example, there is no single letter that gives any true knowledge or guidance to the child. That is, the letters in the purely English part of our composite speech have a historical, but no present value.
9. The monosyllables of the language contain all its different notations, and these with the maximum of inconsistency. In reading the monosyllables, the child can trust neither his eyes nor his ears.

If this notation—which is the dress of the language—could be exhibited to the eye by the help of colours, it would be seen to be of the most piebald characters. It would be not inaptly described by a sentence in one of Dickon's novels: 'As for the little fellow, his mother had him attired in a costume partly Scotch, partly Hungarian; mostly buttons,\* and with a Louis Quatorze hat and scarlet feather.

\* The buttons would represent the *ca*.

If we compare the notation of our English tongue with the notation of the German language, we shall find that—as in its words, so in its letters—German is an almost homogeneous language. One sound is permanently—and not provisionally represented by one symbol; one symbol is permanently translated by one sound, and the consequence is that the experience of the German child in learning to read is always self-consistent, and every effort he makes tells towards the desired result. The attitude of his mind is a single and easy one; every act of attention he makes tells towards the required total, he cannot go wrong if he pays any attention at all; his eye and his ear are always in accord and help each other. Far different is the condition of the poor English child. His attention to the letters will quite as often mislead him as not, in the purest English, the less attention he pays to the letters the better; and he is like a man in trade—he may often be working as hard to make bad debts as to make good ones. The contrast between the work of the German Teacher and of the English Teacher is just as great. The German Teacher's work is simple and straightforward; while the work of the English Teacher is at least five times as difficult, and the conquest of these difficulties requires keen skill, perpetual inventiveness, and untiring perseverance.

Now all this has come to pass from the independent and highly individualised character of the Englishman. A local usage—a traditional custom would always override general convenience or a merely abstract consideration like logical consistency. Indeed, the confusion in our notation has parallels in almost every side of English life. It has an extraordinary parallel in our Weights and Measures, which have been regulated—down to the date of the 1878 Session of Parliament—entirely by local custom. An imperial bushel of corn is estimated in Mark Lane at 63 lb., but it was—down to 1878—72 lb. at Wolverhampton and Stafford, 70 lb. at Liverpool, and 75 lb. at Chester. In short, there were, prior to the passing of the Weights and Measures Act, twelve different kinds of bushels in use in the rain trade. This state of things gave rise to endless confusion. A man might buy his wheat by one measure, sell it by another, and, last of all, demand to be paid for it by weight. These complications involved endless reckonings, and, by consequence, numerous mistakes. They were a great hindrance to trade, and, no doubt, were now and then the cause of serious losses. Another parallel is to be found in the coinage of Austria. There is gold money; there is silver money—some of it debased and deteriorated; and there is copper money; but, in addition to these, there are four different kinds of paper money in four different languages, and some of it is debased to the extent of sixty-per cent. It is plain that, if one received payment of an account in six of these different kinds of money, there would be—over and above the calculation of the value of the things bought in a self-consistent arithmetic—another reckoning based upon the relative and temporary values of the different kinds of money. In such reckonings, a foreigner and a child would be at a very great disadvantage. Now, just as an English bushel or an Austrian coin is continually changing in meaning and value, so the symbols by which we attempt to carry words to the eye of a child are constantly changing in meaning and value; and the child's mind is proportionally confused and weakened. If we had in our arithmetic a traditional system of notation made up of the fragments of the Greek, the Roman, and the Arabic systems; if 479 were written down as  $\Delta VII9$ ; and if, moreover, our coinage were so irregular that sixpence in Middlesex counted for eightpence in Surrey, but it was only fourpence in Hertfordshire, then it would be a very difficult, tedious, and expensive process to teach arithmetic in our public schools.

The difficulty that would be felt, and the expense that would be

incurred, in teaching such an arithmetic as that I have indicated, are really felt and incurred in the teaching of reading—in putting into the minds of the children an acquaintance with the bad habits of our notation. For the problem is not to make the child acquainted with 26 letters, it is really to make him acquainted with and thoroughly practised in 158 eccentric and self-consistent habits which the English have acquired in the course of time, of writing down the sounds of their mother-tongue. To master 158 combinations would require 158 separate acts of attention—each of which must be repeated until the whole are thoroughly mastered. Well; this can be done. But the difficulty is even greater than this. Of these 158 habits, some are inconsistent with and destructive of each other; and the experience of the child is not a regular process of addition and cumulation, but sometimes of subtraction and loss. Let me take an example. There are in the language 59 words in which the symbol *ou* sounds as in *house*, *noun*, &c.; and, of course, if the child meets with a large number of such words, he naturally and quite unconsciously draws the conclusion that *ou* will always have this sound. But by and by, he lights upon words like *your*, *four*, *would*, and *mould*; and now, not only is his previous experience upset, but he forms a vague idea that to *ou* may be attached almost any sound whatever. Now, if we attempted to give an arithmetical value to his experience, we might say. He has met the first case of *ou* nine times; he has met the second case six times; and his experience is therefore equal to three. This is, however, rather a favourable way of putting it. The fact is, that, in our every-day procedure with children, the exceptions make themselves quite as important as the rule, and both Teacher and child, in a kind of silent intellectual despair, give up the guidance of the rule altogether, and teach and learn each word separately, as an individual, and not as one of a class.

The child at first expects to find a certain truth in these marks; but he quickly comes to feel that it is no matter what sound you give to a sign—that the sign itself has only a chance value: and, so far as training is concerned, the Teacher soon discovers that his eye is never rightly or thoroughly educated until after the expenditure of a disproportionate amount of time and money. He has constantly to read off letters that are not there, and to ignore letters that are there; he is constantly coming upon new forms for the same sound, and new sounds for the same forms, so that habit is out of the question. So far as the mind of the child is concerned, unless the Teacher adopts a scientific method, no wish for classification ever arises in the child; or it sets in late, if it ever sets in at all. His past experience is constantly putting him out—constantly tripping him up; until at last he comes to feel that he need not rely on his own exertions, but must be constantly helped over the stones by the teacher. Thus all teaching of reading becomes *telling*; and these are just contraries and exclusive of each other. And here is another loss. our evil notation tends to destroy good teaching.

(To be Continued.)

#### ENGLISH LITERATURE IN SCHOOLS.\*

This is pre-eminently an age of books and periodicals, bad as well as good. and if we estimate the demand by the supply, we must conclude that the influence exerted through their mediumship ranks in power second to none. This influence like the literature naturally divides itself into two classes, the first an educating, broadening, civilizing, and refining force, leaving its impress upon humanity for all time; the second a stultifying, degrading and demoralizing factor, as effective for evil as the first is for good. To arrive at the conclusion that this later class of literature is being spread broadcast over the land, we need but examine the heavily laden shelves

\* Read at the meeting of the Wisconsin Teachers' Association, Madison, Dec. 27, 1882, by Principal Keys, R. Falls.

and counters of any popular book and news store and note that week after week the piles are being replenished. To counteract this something must be done. Boys and girls who have been educated up to that point where the act of reading is not hard work, will read, suiting the subject matter to the nature of the inward craving that exists. If early teaching has not insured that the reader look with disdain upon such productions as "Roaring Bill of Rock Hollow," "The Pirates Bride" or "The Lives and Exploits of the Younger Brothers," very probably some such productions will occupy at least a portion of time. Without staying to discuss the amount of evil resulting from the dissemination of such thought, or the question as to how much of this is due to a total neglect on the part of teachers of what their pupils read, permit me to pass to a consideration of the means by which we may inculcate a taste for a better class of reading, means which to prove effectual, should be resorted to from the beginning of the child's school-life, yes even before he is able to read.

Who that has ever given any attention to the development of the child mind can have failed to notice that craving for something to satisfy their intellectual hunger, shown in their oft repeated "Read me a story." Why should we not take advantage of this appetite, and in satisfying it, take occasion to plant in the young mind the germ of that which shall in coming years develop itself into a passion for the good and great and beautiful in Literature. As a rule we find that at this stage in life nothing at all is done along this line, or else the mistake is made which results in giving us so many persons of liberal attainments, who are totally unable to appreciate anything in literature appealing to the imagination. Too many considered it useless—may worse than useless—injurious to do anything for the cultivation of imagination. At the very period in life at which this faculty is the most promising, it is either allowed to die of starvation or sacrificed to the unnatural support of some other member of the cerebral family. Fairy tales, legends of wonderland, the beautiful myths of the old Greeks and Romans, which the student of literature afterwards finds it so necessary to understand and which confront him with the scientific name of mythology—fables, inculcating the moral and social virtues—all these are cast aside as silly, childish and unpractical, a fellow sentiment to the one which insists that the boy must know interest, square and cube root, etc., even if he does not know how to write an intelligible letter or speak correct English.

Books there are, however, where fact and fancy are so closely interwoven as to satisfy the demands of him who must see his proximately practical use for everything without the expenditure of a moment's thought. I remember distinctly my first large story-book, "The Seven Little Sisters That Live in the Round Ball That Floats in the Air," and I spent hours in thinking and dreaming over the wonderful things which I read and re-read. They were put upon the same basis as my fairy tails, and sank just as deeply into my mind. Years afterwards, when my teacher began to tell me of this wonderful earth of ours that goes spinning through space, and the different people who live upon it, my story was quickly translated, and became a series of valuable lessons in geography and ethnography. Books of this class, together with books bearing a similar relationship to natural history, will be eagerly devoured. It is wonderful how much useful information may thus be imparted and the desire for more increased.

The chief line in which corruption of taste may come in early years is that of reading cheap and villainous periodicals. This may be prevented by placing in the hands of the pupil something of a fitting and interesting nature, and then striving to create a sentiment against the worthless reading. A little persevering energy

in this direction will soon drive out the practice from our schools, or if not totally eradicated the habit will soon be put on a basis with other evils in which some pupils may clandestinely engage. There are periodicals like the "Youth's Companion," for instance, which will be seized upon with avidity by all young readers.

The storing of the mind with useful thoughts clothed in beautiful language is an adjunct to this work, which cannot be too highly rated. It should be begun early when the child memory is in its vigor. The practice is often aimlessly followed by teachers of having their pupils learn poetical quotations of any kind that tingles, without reference to the thought. The fact that verse is more easily memorized than prose seems to be enough to commend it. "It thus happens," says Bain, "that poetry above all other things may be committed to words as three-fourth words, and one-fourth meaning." Prose selections, although more slowly mastered, will as a rule be of more benefit. But the time does come when poetry may be read with advantage. As few persons accustomed to simple foods only at once relish the highly seasoned dishes of the French cook, so few pupils are at first able to appreciate the beautiful in poetry. Like the great mass of our tastes, it begins with little things and its growth is gradual. Were we to begin our high living with an attempt at highly-spiced soups or wines there might come straightway an aversion to these delectables which we might be unable to overcome in years of willing effort. So the teacher who endeavours to furnish as mental pabulum for his classes beginning an acquaintance with poetry, Milton's *Paradise Lost*, Virgil's *Æneid*, or Shakespeare's Tragedies, may expect to see them turn in disgust, and wonder what manner of individual it can be who can enjoy such reading. To prevent such a disastrous state of affairs, necessity demands that the first poems selected shall be eminently interesting. Short ballads, historical poems, etc., may pave the way to something of a more formal nature. One poem that in our individual experience has proved more useful than others as an appetizer for the higher class of reading is Scott's *Lady of the Lake*. Read daily for thirty minutes to a class of twenty pupils, discussed at the time of reading, reproduced in short prose tales, and in five minute talks from members of the class, and so handled as to insure its thorough understanding and preclude the possibility of its serving simply as an occasion for a little mental dissipation, we believe it engendered an appetite for more of the same kind with fully three-fifths of that class which will leave its impress upon them through their entire lives. They become possessed with a desire to know something of the man, and his contemporaries and their writings, until they become ardent lovers of good reading, if not earnest students of English literature.

Some years ago this Association saw fit to outline a course of reading for the teachers of the state of Wisconsin, which I have reason to know has borne good fruit. I am cognizant of the fact that in at least three counties of this state the course has been and is being read by the great majority of the teachers, and county superintendents make a note of such reading on all certificates issued. Now while I recognize the philanthropy of this work of reconstructing so many teachers, would we not secure much more good if a suitable course prepared by the most experienced and able talent of the state for the pupils of our schools were placed in the hands of the teachers through the agency of the state department? The great mass of the teachers of the next generation are in the schools of to-day, and the effects of such a movement would be felt in the schools of the future. Were it not that it might seem like an attempt to close discussion of this topic, I would move that a committee be appointed by the chair to prepare a course of reading for the pupils of the public schools, report to be made to this body at the regular meeting in July.

## THE READING CLASS.

The teacher who expects to attain the best results in her management of the reading class, must be attentive to the following particulars: 1. She must comprehend what are the desired ends of her teaching of this class. 2. Knowing these, she should understand the best means and methods of reaching them. 3. She will have to be persistent in her efforts to accomplish them, and be able to know when a fair degree of proficiency is attained.

I propose only to say a few things concerning the first of these particulars—the ends to be accomplished in the teaching of the reading class. When I refer to the reading class, I wish to be understood as that class which begins with the child in its first attempt to learn the signs of ideas as associated with visible objects, and continues on up through every grade of advancement, till it finally emerges from the tuition of a teacher. The question which every faithful teacher should settle within her own mind is, "What are all the objects to be arrived at in teaching reading? What is the nature of them?" If she has finally settled this matter, she should then familiarize herself with every principle, every method, calculated to develop that purpose, until to her mind they are as simple as the alphabet.

To one who has never given this subject much thought in its broadest sense, an outline of the main things to be accomplished may not be inappropriate.

1. *A Mastery of Words.*—The beginning point in the commencement of teaching every child is to teach him words. He must be taught to recognize them as the representatives of ideas, first as the signs of objects familiar to him; and as he advances, by reversing this order, for he then learns ideas by learning to recognize words which were not familiar to him. When the child learns to know a word, he should be taught to speak it and write it. By the latter process he is taught to spell the word. It will not be attempted in this article to suggest methods. The skillful teacher's ingenuity will devise her own. The result is all that shall claim our attention. In the mastery of words, the pupil must learn to recognize words; to associate the word with the idea it represents; to speak the word; and spell the word by writing it. The accomplishment of this result is not confined to the primary teacher, but will continue to be an object of importance as long as the pupil studies the art of reading. The methods only need varying.

2. *Delivery.*—After the pupil has been taught a sufficient number of words to construct into sentences, he should then be taught to read them in a proper manner. The first principles of delivery should be taught them at once. The habits of articulation, emphasis, inflection, etc., are only perfected when they are enforced in early youth. As the pupil progresses, more of the principles of expression should be taught him, and when sufficiently advanced, the terms, definitions, rules, etc., of elocution should be mastered. All the arts of oratory, all the graces of the elocutionist, should be taught, if he continues in school long enough for their accomplishment.

3. *Increasing the Child's Vocabulary.*—No other subject is so important as this. When a pupil becomes the master of a large vocabulary of words and knows their meanings, he is then in possession of such means as enable him to think. Our ideas are always thought in words and expressed in words. If we notice our own cogitations, we will always find ourselves employing words to aid us in following out a train of thought. The child's knowledge of words should be as much expanded as is possible. Right here I will venture to suggest that the dictionary is perhaps the best aid in the accomplishment of this end. Giving definitions, synonyms, and the various meanings will be a most valuable exercise. As the pupil

progresses, a study of the etymology of every new word coming up for discussion will strengthen this knowledge. A thorough drill in these exercises will prove most invaluable to the pupil in the pursuit of the knowledge of other branches.

4. *The Study of Language.*—The reading recitation affords many and excellent opportunities for acquiring an intimacy with the structure of our language. The relation and government of our words may be taught a long while before the pupil is capacitated for the investigation of technical grammar. Certain slate exercises on the reading lesson will result in a development of the powers of expression. Children under skillful teaching will have made considerable progress in a knowledge of their language while yet reading in the primary readers. It should not be taught in a desultory manner, either; the simplest principles should be first developed, and afterwards more complex ideas mastered. What is taught should be thorough as far as it goes.

5. *Learning the Elements of other Branches.*—In our reading books there are many lessons which teach facts pertaining to other studies. Biography, history, geography, and science are all more or less represented in the reading exercises of our text-books. The teacher should see that they are fully understood by the pupil. It will often be necessary to supplement these lessons with explanations by the teacher, in order to make their meaning plain. It is proper that pupils have regular exercises in reading, writing, or script. Lessons placed on the board by the teacher, in which are stated the elements of science, or some other branch of knowledge, will answer a two-fold purpose—a reading lesson, and a lesson in a collateral study. Such lessons heighten the interest, quicken the thinking faculties, increase the common fund of knowledge, and improve the memory.

6. *The Study of Literature.*—Just now this subject is receiving some of the attention that its importance deserves. While it is impossible to discuss this matter as fully in a brief space as it merits, a hint ought to be sufficient to the wide-awake teacher, that her work is not satisfactorily or effectually performed if she pass this matter unheeded. Biographical sketches should be written on the board, and the pupils encouraged to hunt up information on the same subject for themselves. They should further be required to write up such sketches. They must be instructed in the peculiarity of style of each author. The productions should be analyzed, and the choice thoughts memorized. By beginning with the child at an early age, and teaching no more than it is able to comprehend, and keeping it until it has grown into the young lady or gentleman, a large amount of culture in this direction will be quite perceptible.

7. *The Cultivation of the Voice.*—If the teacher is perfectly well informed regarding all that is incumbent upon her in developing a proper culture of her pupils, she will not neglect this. No rules are to be given here. Pleasing voices delight us all. They impress us agreeably or otherwise according to their character, and if there is such a thing as improving an unpleasant voice by cultivation, that teacher is greatly to blame who fails to make an effort towards its accomplishment. The voice is susceptible of cultivation to a great degree of power; its expression may be made beautiful and varied; and its care should constitute a large share of attention. The nature of certain kinds of food, the dress, the use of stimulants, and exercise, should be fully explained to every one, and all be required to conform to such rules as will promote and preserve its power and beauty.

8. *Cultivating a Love for Reading.*—No teacher has fully succeeded who has failed to implant in her pupils a passionate love for reading. Not reading for mere entertainment of the mind, but the nobler, the higher uses of seeking wisdom in the realm of thought,

as it is to be found in books and papers. That individual is poorly prepared for life who has not been taught to enjoy the great pleasure of perusing the thoughts of others. Reading should not stop when the school life is ended, nor when one settles down into a home and business of his own. All should read, not anything and everything, but should be taught to read in a systematic way. Thus will they round out their intellectual talents in all directions, and verify the truth long ago stated by Bacon, that "Reading maketh a full man."

T. W. FIELDS, in *Indiana School Journal*.

### A LANGUAGE LESSON.

Unbounded as is the influence of the teacher, for good or ill, in no direction is it more potent than in the matter of language. Children are close imitators. The teacher's language is adopted unconsciously, whether it be pure, or blemished by inaccuracies. We all know how easily one falls into incorrect habits of speech, and catches expressions which, if not positive slang, are, at least, "more striking than classic." We imitate the tones and tricks of speech of those with whom we are most intimate, to such an extent that those who know both parties recognize the adopted tone, and immediately attribute it to its proper source.

It is through this tendency to imitation, that the teacher may hope to affect the language of her pupils, as well as by personal effort for that end. But is her language worthy of imitation? Is it grammatically correct, pure, simple truthful? One has only to listen to the conversation at any teachers' gathering, to be convinced of the fact that the teacher is not always a model of accuracy.

Perhaps, young teacher, your attention has not been called to your own defects. Watch yourself carefully through one entire day, and you will be startled at the revelation. You may not be guilty of "aint"; of "I done it," for "I did it"; of "When I come to school this morning," for "When I came," etc. Are you equally free from, "He don't (do not) pay attention to his work," "intended to have written," "I am going to go to the lecture," "Each pupil may take their slate," and the like?

Endeavor to correct all these errors, and you will realize how hard it is to overcome the habits of a life time. Is it not a dreary thought that, with extremely rare exceptions, human beings are surrounded in childhood by those whose speech is inaccurate? Thus from our very births we form wrong habits that only the most persistent effort can correct. And here we find a strong argument for accuracy on the part of the teacher, as well as for the correction of pupils' errors by the teacher, before bad habits are strengthened by years of indulgence therein.

Do not be discouraged if you do not at once succeed in revising your methods of speech. Take one error at a time. Cultivate the habit of criticising the language of others, not uncharitably, but to render the ear sensitive to errors. When one's ear is quick to detect flaws in the conversation of others, it will reveal equally as well one's own imperfections. This point reached, we have good reason to be hopeful.

Is your language pure? Do you, of several expressions, choose that which is the most refined? Be on your guard against the use of slang. To young children there is something attractive in a free off-hand style of conversation; but do not let the freedom degenerate into coarseness. There are many expressions which began existence as unmitigated slang. Adopted here and there by members of a class higher than that with which they originated, they have at last come to be regarded as fairly respectable English. Shun them. Be as exclusive as you will in the domain of language.

Let your language be simple and concise; free from that superfluous use of adjectives which leaves one at a loss for words to describe objects occasioning emotions of grandeur, sublimity, and beauty, because "awful," "magnificent," "grand," "sublime," "perfectly lovely," are used so commonly as to have lost their meaning.

Be true. Perfect truthfulness of character will reveal itself in truthful language. The habit of exaggerated utterance is so universal that a person whose language is exactly suited to the thought to be expressed is indeed rare. Let your conversation be so simply true, so free from exaggeration that your pupils will say of you, "Teacher never says anything she does not mean."

Does it seem a trivial matter to give one's attention to deciding whether a dress is indeed "perfectly lovely," or only "very beautiful"? "He that is faithful in that which is least, is faithful also in much." Remember that years of faithfulness to duty, even as a child, bring their reward in the crises of our lives. When the heart is torn with anguish, and the mind is shrouded in darkness; when on the pathway before us no light is thrown, and we are tossed about in dread and uncertainty; then Duty, who may have been the "stern lawgiver" of former years, assumes "the Godhead's most benignant grace"; and, giving back to us the strength that is born of long obedience, holds us firmly by the hand and leads us again "beside the still waters."

Our language has been made what it is to-day by the accumulated additions of successive generations. What service shall our generation render? In the future years will the student of language find in the language of this period a high-toned national life? In nothing is the life of a nation more plainly revealed than in its language. Remember, and we cannot emphasize this point too strongly, that the nation is but the "general average" of the individuals composing it,—whether in language, manners, or morals. It is only as each individual becomes conscious of his duty, and seeks a higher plain of personal attainment, that there can be any national aspiration toward higher things. Ponder upon this, young teacher. Let the thought stay by you until it becomes a part of your mental possessions. Nay, more, until it shall become a ruling motive of your life, and is incorporated into your character that fine patriotism that leads one to make of himself all that he can, for his country's sake.

By Ida M. Gardner, in the *Primary Teacher*.

### SCRIPT FIRST—THEN PRINT.

A teacher asks, "Why printing on slates should not be taught to small children since that is the form which is first put before them." The child should be taught to read script first from the black-board, and he should begin immediately to copy the words on his slate. One reason for copying is, that there are no books or charts, which contain repetition enough to familiarize the child properly with the words.

By teaching the script first in this way the child learns the print form to be the reading form. He makes the transition without difficulty. If you teach print first on the other hand, it seems almost like a new language to learn the script. This method has been tried a great many times and all who try it say that script should come first. One of my classes is composed of children who knew nothing whatever of reading script first. I taught them script from the board, taking words I knew they would need when they were ready for the chart. When these words were familiar, I turned to the chart, and found they read them with perfect ease. The error in this way of teaching reading is, that those who try it do not present the words to the child sufficiently in script before turning to print.—V in *New York School Journal*.

## THOUGHTS ON LEARNING LANGUAGES.\*

Hänschen's father sat on the deck of an excursion-steamer with little Hänschen on his knee. Hänschen was a bright, little roly-poly German boy. He had never heard of "methods in language," but he was learning German. So was I; so I sat near the happy father and son, and made a study of Hänschen's masterly method of getting hold of his subject.

"What's that, papa?" pointing with the plump little index to the rapidly-passing shore. "That's a castle." Hänschen repeats the word after him quick as thought. He meditates a minute. Being a lover of truth, he will repeat the question to be sure of the correctness of the statement. "Papa is that a castle?" "Yes; that's a castle." Hänschen feels assured. "Another castle?" Again the noble fat finger does good service. The big brother comes to his assistance. "O, see the castle, Hänschen?" The eyes of the baby-buy glisten with interest and his curly pate bobs about. No castle is to be seen. He frowns; he has been deceived. He knows a castle now. No one can deceive him on that subject.

Hänschen is a social being. He is getting his education by intercourse with other minds. Moreover he is busied about the most important branch of education. He is learning to enter into the thoughts, feelings, and motives of his fellow-men. What are the principal features of Hänschen's method?

*First* : He learns one thing at a time.

*Second* : He repeats it again and again. When he gets home, he will tell mamma about the castle, and there will be a review-lesson on the subject. To-morrow he will find a castle in his picture-book.

*Third* : He busies himself with *how* it, not a word; just as when he takes his luncheon, he thinks about the bread, not about the fat little hand that holds it.

Is Hänschen amused by the castle? More than that: he is intensely interested. Is it tiresome to him to talk about the castle? Is his brain wearied by this new thought?

That night, while Hänschen eats his bread, his big brother tells him about a castle ten times as large as the one he saw to-day. A dreadful ogre lived in it who ate up little boys. Hänschen's imagination begins to run riot. He dreams of a sugar castle, which he will eat all himself. His lips suck it gently in his dreams. He will never forget the word "Schloss." Neither shall I.

By a daily repetition of this process our babies, all over the land, learn that absolutely perfect imitation of the speech of their elders which, is the wonder, admiration, and envy of any adult who attempts to accomplish the same thing. No idiom or pronunciation is too difficult for them to attain. The vocabulary of the small child may be limited, yet the real difficulties of the language have all been mastered long before he is five years old.

In learning foreign languages can we make any improvement on this method? The study of language, when properly undertaken, is a delightful recreation. It deals with that most charming of all subjects,—human nature. The bright eye, the glowing cheek, the youthful enthusiasm, are its attendants. In this, as in all other branches of study, the teacher must learn to know his place, to be a learner with his pupils. Let him sit at the feet of the infant babblers and learn perfection in method.

In so far as he can learn to develop the personality of his students, to arouse in them a love of thoroughness and appreciation of the beauties of language, in so far does he show himself a humble, conscientious, and worthy follower of the method of a little child.

\* By Maud Bell, Teacher of French and German, Potsdam (N. Y.) State Normal School.

## SCHOOL-ROOM SKETCHES.

BY JOHN R. DENNIS.

In the Bailey school-house a new teacher had been obtained. He was a tall, lank fellow; a high brow and compressed lips showed he was narrow in ideas and determined of will. The pupils were from the farm houses and the little hamlet near the mill and woolen factory. They were not a bad set of boys and girls; their fathers and mothers were steady church goers and a prayer meeting was held in the school-house each Sunday afternoon. Yet it was deemed necessary that very strict discipline should prevail, at least what was called discipline.

On opening the school Mr. Allen told the boys and girls that "he should expect good order; that no whispering would be allowed; that no one could swear or call names on the school ground, or on the way to and from school." He held in his hand a stout ruler and waved it about in an energetic manner while speaking and finally laid it on the desk. "Boys," he said in conclusion, if I have occasion to use that ruler it will be your fault; and mark me, if I use it I shall use it with a heavy hand."

This was a common enough peroration twenty five and thirty years ago; but light was beginning to dawn on the boys in the Bailey district. Some had been to an academy in a village about ten miles distant and returned with the information that no one was flogged there. The determination was deep and strong among the older boys that they would not be flogged at school. "If I can get along at the academy without flogging, I can at a district school, I guess," said Julius Cone.

The parents sided with the ideas of the teacher, because in all times past children had been whipped at school. The advice they often repeated to the boys, was "only bad boys are whipped; and if you are good you are safe enough." The preceding winter a boy had been tied to a post and whipped very severely, because he made a picture of the teacher sitting on a barrel and smoking a pipe. As this was what he had been seen to do at a small grocery, near the mill, the castigation was deemed by the boys to be a great injustice. Deacon Cook represented the other side of the case. "He mustn't disrespect the teacher; besides he mustn't make pictures on his slate, that's for cipherin' on."

So that, unknown to the parents a revolution had begun in the district. At the close of the first day, the subject was pretty thoroughly discussed, and the older boys determined, "not to be put upon; if Mr. Allen treats us well, we'll treat him well." The second day brought in an addition to the pupils for the farm work was nearly completed. After cautions as to whispering the teacher had the pupils "read round in the testament"; this was the first thing done in all country schools years ago; the old and the young all read a verse. Mr. Allen watched the boys, for he meant to strike terror at the outset. He foolishly thought that flogging was part of his duty as a teacher, and that it must be done in order to secure order.

"You are whispering: come out on the floor." The unfortunate boy was Peter Cowles, a good natured, but obstinate hoy of seven-teen or eighteen years of age. Peter obeyed.

"What was you saying?"

"I said, I wish I was to hum."

"What did you say that for?"

To this no reply was made, for Peter would rather be whipped than tell the school that he had come from home without any breakfast. Mr. Allen conceived that Peter intended to compare the school with his home and to assert that his education would be

advanced as much at home as at school. This affront he must put down at once.

"Off with your coat, sir."

"I'd rather not take off my coat," said Peter.

The reason was that the boy had no vest on and his suspenders were mere strings, for the Cowels were poor—yet they had pride; in fact this was the strong point of the family. Mr. Allen did not know that Peter was resisting to save the reputation of the family, but looked at his resistance as displaying a further depth of depravity.

Then ensued one of those scenes, then so common, but happily less so now; a scuffle between the teacher and pupil. The teacher was armed with a cut ruler and used it as a policeman does a club, but the cruelty he displayed aroused Julius Cone and he held the master's arm.

"You ought not to strike him like that, and I'll not stand by and see it."

The younger children and girls rushed out of doors, but returned at the quiet that ensued. The teacher sat in a chair and two of the older boys James Barnes and Julius Cone were beside him.

"We don't intend to hurt you, but we cannot see that boy beaten with a club for nothing."

Mr. Allen was in a quandary; it was necessary for him to teach school; he felt there was justice in what the boys said; and so after a moment's thought he said,

"Do you mean to prevent me from keeping order?"

"No sir; we shall only prevent you from abusing that boy."

"Well, boys, take your seats, call in the pupils and let us talk this over."

The result was that the teacher and the older pupils came to an understanding. It seemed to the master at first that he was humiliated and that his influence was gone, but it was but for a brief period. He soon felt that James and Julius were his firm friends; as they came to know each other better, each respected the other more. Mr. Allen had the making of a good teacher in him and the school that winter was declared by many "the best we ever had."—*New York School Journal*.

#### CONCISENESS IN STYLE.

In teaching children to write the first effort is to induce them to write as much as possible about a given topic. Later, however, the great point should be to express a given thought clearly in the fewest words. A good rule to follow is this: First, write out your thoughts fully on the subject under consideration. Second, revise your composition and cut out from one-fourth to one-half. What is left will contain all the essential ideas, and be more pointed than the first draft.

Conciseness, especially in written speech, is a great virtue. Teachers need to study it—they should teach it. Writing telegrams is an excellent exercise. A minister who was taken to task for preaching a whole hour, apologized by saying that he had been over-worked, and did not have time to make his sermon shorter. Hawthorne is acknowledged to have been a master of a pure English style. You will not find an italic letter in any of his books. His emphasis was in the sense of what he wrote. He used, almost entirely, words of few syllables. There are no big, heavy words in his works. He used no foreign words or phrases, either ancient or modern, in any of his writings. Those who would write well should follow his example. Use short sentences; if long ones, break them up. Have one member of a compound sentence longer than another. Use words to make things clear. Think of your reader; have it before you that he understands just what you have said.—*Indiana School Journal*.

#### TEACHING COMPOSITION.

##### 1.—Directions for Teachers.

1. When you take charge of a class not previously trained in composition-writing, set the pupils to copying short reading lessons. Let them exchange papers, and, with open book, correct one another's exercises with reference to spelling, punctuation, capitals and paragraphs.

2. Next, let them write out an abstract of some familiar story, told or read to the class.

3. When you require a formal composition, select a subject for the entire class, and give the necessary directions, explanations and suggestions. Select subjects about which your pupils know something. Never abstract subjects, such as happiness, or knowledge, or virtue.

4. Train your pupils to correct one another's compositions, and require them to re-write corrected exercises.

5. "I call that the best theme, which shows that the boy has read and thought for himself; that the next best which shows that he has read several books and digested what he has read; and that the worst which shows that he has followed but one book, and followed that without reflection."—[*Thomas Arnold*].

6. "Training in the appropriate use of the English language ought not to be limited to the mere grammatical exercise of composing sentences. Even in our common schools it should extend to the cultivation of taste by which neat as well as correct expression is acquired as a habit."—[*Russell*].

7. "I hold as a great point in self-education that the student should be continually engaged in forming exact ideas, and in expressing them clearly by language. Such practice insensibly opposes any tendency to exaggeration or mistake, and increases the love of truth in every part of life. Those who reflect upon how many hours and days are devoted by a lover of sweet sounds to gain a moderate facility upon a mere mechanical instrument, ought to feel the blush of shame, if convicted of neglecting the beautiful living instrument wherein play all the powers of the mind."—[*Prof. Faraday*].

8. "The study of rhetoric in high schools ought not to be completed in fourteen weeks. It should be continued through the entire course, at the rate of one lesson a week, because it relates to language, which is the instrument used by teacher and pupil throughout the course. This method will give time to write the exercises assigned in works on rhetoric, and will not interfere with other studies relating to the English language."—[*George W. Minns*].

##### 2.—Directions to be Given to Pupils.

1. Think about the subject and make some plan of arrangement.

2. Do not run together a long string of statements, connected by *ands*, *buts* or *ifs*, but make short sentences.

3. After writing the first draft, examine it critically, cross out superfluous words or phrases, interline, correct, and then re-write.

4. In correcting, examine with reference to: 1. Spelling; 2. Capitals; 3. Punctuation; 4. Use of words; 5. Construction of sentences.

5. Acquire the habit of crossing *t*'s, dotting *i*'s, and punctuating, as you write.

6. Do not put off writing until the day before you must hand in your composition.

In school-work true principles must underlie correct practice; just as truly as good soils underlie the production of good grains and fruits.—*Education*.

There is no harm, but on the contrary there is benefit, in presenting a child with ideas somewhat beyond his easy comprehension. The difficulties thus offered, if not too great or too frequent, stimulate curiosity and encourage exertion.—*Sir Walter Scott*.

## CONVERSATION IN A GRAMMAR CLASS.

*Teacher.*—Will you give me a rule for the agreement of a verb in a relative clause in which the relative is the subject, and has for its antecedent predicate noun referring to a subject in the first or second person?

*1st Pupil.*—I do not understand the question. Will you please give me an example?

*T.*—Should we say "I am the general who commands here," or "I am the general who command here?"

*1st P.*—The latter.

*T.*—Why?

*1st P.*—Because the subject of *command* is *who*, referring to *general*, a predicate noun denoting the same person as *I*.

*T.*—Should we say "I am he who am going to do this" or "I am he is going to do this"?

*2nd P.*—The latter. Because *who* refers to *he*, pronoun in the third person.

*T.*—Passing this for the present, what rule have you learned for the agreement of the pronoun with its antecedent?

*3d P.*—It agrees in person, number and gender.

*T.*—Is that true of all pronouns?

*3d P.*—The grammar says so.

*T.*—How do you know the antecedent of an interrogative pronoun?

*4th P.*—By looking in the answer.

*T.*—In the following, "Who comes here? Ans. I am coming," what is the antecedent of *who*?

*4th P.*—The pronoun *I*.

*T.*—How can the form *comes* agree in person with *I*?

*4th P.*—That's what the grammar says anyhow.

*T.*—Passing this for the present, should we say, "Whosoever thou art who comest here" or "Whosoever thou art who comes here?"

*5th P.*—The first, because the antecedent of *who* is *thou*.

*6th P.*—The second, because the antecedent of *who* is *whosoever*, a predicate pronoun in the third person.

*T.*—Passing this for the present, tell me what the subject of the verb is in the following sentence:—"It is pleasant to see the sun."

*7th P.*—"To see the sun," for *it* is a mere expletive, serving to throw the subject after the verb.

*T.*—In the following sentence.—"It was not he that did it," what is the subject?

*8th P.*—The pronoun *he*, *it* serving the same purpose as before.

*T.*—Are you sure?

*8th P.*—That's what our "Analysis" says.

*T.*—How is it in the following: "It is I?"

*9th P.*—The pronoun *I* ought to be the subject, but I don't see how it can be.

*T.*—You may look up all these points for to-morrow.—*Illinois School Journal.*

## BE A GOOD READER.

There is one accomplishment in particular which I would earnestly recommend to you. Cultivate assiduously the ability to read well. I stop to particularize this, because it is so very much neglected, and because it is so elegant, charming and lady-like an accomplishment. Where one person is really interested in music, twenty are pleased by good reading. When one person is capable of becoming a good musician, twenty may become good readers. Where there is one occasion suitable for the exercise of musical talent, there are twenty for that of good reading. The culture of the voice necessary for reading well, gives a delightful charm to the same voice in conversation. Good reading is the natural exponent and

vehicle of all good things. It is the most effective of all commentaries upon the works of genius. It seems to bring dead authors to life again, and makes us sit down familiarly with the great and good of all ages. Did you ever notice what life and power the Holy Scripture has when well read? Have you ever heard the wonderful effects produced by Elizabeth Fry on the prisoners of Newgate by simply reading to them the parable of the Prodigal Son? Princes and peers of the realm, it is said, counted it a privilege to stand in the dismal corridors among felons and murderers merely to share with them the privilege of witnessing the marvelous pathos which genius, taste and culture could infuse into that simple story. What a fascination there is in really good reading! What a power it gives one! In the hospital, in the chamber of the invalid, in the nursery, in the domestic, in the social circle, among chosen friends and companions, how it enables you to minister to the amusement, the comfort, the pleasure of dear ones, as no other art or accomplishment can. No instrument of man's devising can reach the heart as does that most wonderful instrument, the human voice. It is God's special gift and endowment to his chosen creatures. Fold it not away in a napkin. If you would double the value of all your other acquisitions, if you would add immeasurably to your own enjoyment and to your power of promoting the enjoyment of others, cultivate with incessant care this divine gift. No music below the skies is equal to that of pure silvery speech from the lips of a man or woman of high culture.—[*Prof. John S. Hart.*]

## AN IDEAL COUNTRY SCHOOL-TEACHER.

As the character of a teacher in the country may tell more directly on the pupil than elsewhere, let us see what qualities are most needed. Justice should be its basis. No teacher ever rules well by caprice. A wrong deed may not call for excessive punishment, but the punishment should be sure. Do not let one pupil suffer while another goes free. Nevertheless, owing to the different temperaments of the scholars, the same act may be a more serious fault in one scholar than in another, and may call for different treatment. So it is best to let it be clearly understood that the teacher will use his own discretion in punishment. Be sure, however, that that it is discretion, and not partiality or carelessness which governs. The pupils may not understand the difference, but they will soon feel it.

Good temper should come next, perhaps. Sharpness rasps the pupil's nerves, and causes a loss of intellectual as of moral force. Perhaps even an ideal teacher cannot always be inwardly good-tempered, and let us use the largest charity in judging the worn and tired actual teachers; nevertheless the ideal remains the same,—an unruffled and pleasant exterior.

If a high sense of honor could be cultivated in boys and girls, the world would soon be a different place to live in. Whether in the business community or the domestic circle, new forces would be set in action. There are many ways of inculcating honor, but none so sure, slow as its works may be, as for the teacher to be thoroughly honorable in dealing with the pupil. A new teacher blushes to own ignorance, perhaps but unconsciously gains a moral power by the honest admission of it. I do not mean that a teacher should publish his own failings; but that no clever subterfuge which deceives the pupil can have half the educational value of entire truthfulness.

Teachers of country schools should be emphatically ladies and gentlemen. The finer their manners the better, though these should rest upon a substratum of something besides manners. Children catch a trick of manner very quickly. An untidy teacher has a far more unwholesome effect upon pupils than one who works out cube root with difficulty. It would even be a good thing if the teacher

understood all the refinements of etiquette, provided that nothing more important had been sacrificed in acquiring them; but, in that case there should be sufficient judgment not to urge these niceties upon children whose parents would grumble at them. The teacher must have tact to see that many kinds of knowledge must be withheld until the pupils themselves begin to reach out for them.

A social disposition is of great value to a country teacher. To know the habits and wishes of the parents is a great help in instructing the children. To be liked and sustained by the parents gives one power over the children. To be useful and entertaining in society gives one the support of the whole community. If you are admired and loved by those your pupils admire and love, they are eager to follow out your plans instead of being goaded to it, and the more widely you exert among the people outside your school the same influence you exert in school, so much the more powerfully the combined energy of the whole village will work toward the ends you consider valuable.

### PROMOTIONS.

It can never be a kindness to advance a scholar prematurely. The great lessons of thoroughness and industry are seldom learned in a school where good scholarship as a condition of promotion is not rigidly insisted upon, and if it could be shown that the matter of grading had no influence upon the formation of character, it would still be true that the discipline and culture gained by repeating half-learned studies is always better than a premature advancement to branches for which the pupil is unfit. Great injury is often done to children by their parents or teachers in permitting them to discontinue elementary or fundamental subjects of study, before they have fairly mastered them. Nothing is more valuable in education than the habit of painstaking perseverance. He who has become accustomed, while a school boy, to master difficulties and persevere till his task is accomplished, can hardly fail to make a successful and useful man. In all possible ways the school should inculcate habitual thoroughness and persistent application, and one of the ways in which this important lesson may be taught, is by insisting that real merit, as evinced by good scholarship, shall be an invariable requisite to promotion.

Again, each study is an integral part of the curriculum and essential to its completeness. Different branches exercise and improve different faculties. Each gives a certain tone and direction to the intellectual training, and the result of these various forces, blended with native endowment, is the mental power which each graduate possesses. If culture and ability result from school work and influences, it must follow that if any part of these influences be withdrawn, the culture will, to that extent, be deprived of its symmetry and power. In general, academic students cannot safely be allowed much option in the arrangement of their course of study. In most cases it will be found that the branch for which such scholars manifest a distaste, is the very one that is needed to develop faculties which are yet weak. To permit them at so early an age to concentrate their interest and effort upon favorite studies, will necessarily produce an unsymmetrical development. The world is already too full of unbalanced minds. Men of sound judgment, whose faculties act in harmony and with vigor, are wanted; not those who see all subjects in a distorted light. For this reason and because the knowledge afforded by each subject is useful in itself, we insist that scholars shall do satisfactory work in each study.

Students who are "kept back" not only regret what seems to them a loss of time, but also feel disgraced to go into a lower class. This feeling may be natural, but it is clearly a mistake and ought

not to stand in the way of the real interests of the scholar. It is not strange that some should fall behind on account of poor health or immaturity. All do not learn with equal facility, and not unfrequently a person whose mind acts slowly will prove to be capable of excellent attainments in the end. Nor should it be considered an evidence of superiority that one's mental powers develop less rapidly. But even if this were the case and if the pupils were not benefited by repeating a year of unsatisfactory work, it would still be right and necessary to enforce a grading of the school. The greatest good of the greatest number would require that a scholar who was not able to keep up should be transferred to a lower class, and no one will seriously argue that the standard should be lowered. It will rather be our aim to steadily advance our standard of scholarship.—*John E. Bradley, Principal Albany (N. Y.) High School.*

### HEALTH IN THE SCHOOL.

Health in school-children is the first condition of good intellectual work. This principle is often disregarded by our most conscientious teachers, and the neglect of the physical side of the child's nature often leads to the most disastrous results. In the first place the teacher should inquire into the bodily ability and vitality of his pupil, and learn at the outset as much as possible of his temperament, tendencies, and temptations. A sound body must possess a sound mind. Of forty children no two have the same strength of mind, size of lungs, and working-force of the brain, condition of nervous system, quality of voice, gait, address, etc., no more than any two resemble each other in the form and the features of the face. Here is a boy with the lungs of a stentor; there one is flat chested, with flabby muscles and weak constitution. Here is a girl with rosy cheeks and vigorous mental action; there another, pale, almost bloodless in cheek, heart, and brain. All are in the Arithmetic class. The same lesson is assigned to the four. Is it probable that all will grasp the principles and their application equally quick, or express them with equal clearness and accuracy? Not at all; and the teacher who attempts the impossible either in restraining the strong to meet the capacity of the weaker, or of spurring on the weak to equal the stronger, is doing an injustice to the physical and intellectual natures of both, and should be punished by the Society for the Prevention of Cruelty to Children. The first purpose of the teacher should be to preserve the ruddy cheek and the strong muscle of the strong, and, if possible, by the best conditions of study, exercise, etc., to make them more vigorous and healthful; and on the other hand a more important duty rests on the teacher relating to the over-nervous, bloodless, and less-vital children. To tax these to their utmost is cruelty, and to cause their bodies to weaken under study, is a costly and expensive performance. That is the best school where the dull ones have the best chance, because they need it the most, and where the weak ones can get a better hold on life, its vital forces and supports, that they may not fail in the supreme hour of life's trials and temptations. To equalize as far as possible the conditions of healthy manhood and womanhood, teachers should study to educate the child physically, by proper light, heat, ventilation, exercise, and study; by removing all preventable causes of disease from the school-room, and watching lest contagious or infectious diseases come within the school premises. Those who can graduate healthy children with medium attainments are superior instructors of youth to those who press the intellect at the expense of the bodily powers, and who send out into the world a class of physical weaklings, top-heavy, to be turned upside down in the world's struggle.—*The Public School.*

## Notes and News.

## ONTARIO.

Mr. J. D. McMillan has been appointed head master of the Murray Street separate school, Peterborough, in the place of Mr. M. O'Brien who has accepted a similar position in the Lindsay separate school. Miss C. Lockard is engaged as first assistant and Miss E. Hurley retains her place as second assistant. Miss Ellie T. Neagle is teacher of the first ward school. Mr. Mellmoyle is reported to be a teacher of experience and considerable ability and good results are expected from his appointment.

The attendance at Newburgh high school, David Hicks, B.A., head master, is larger now than it has been for some years. Mr. Anson Aylsworth has been appointed assistant teacher.

The Newburgh school board decided to place the third and fourth book classes of the public school under the charge of Mr. Tinsdale whose salary has been increased to \$600 in consequence of the additional work.

G. A. Smith, B.A. has received the appointment of science master in Lindsay high school, W. E. Tilley, M.A., head master.

London collegiate institute has been favorably reported on by J. E. Hodgson, M.A., high school inspector.

Mr. J. H. Allin, of Orono, has transferred his services to S. S. No. 3, Darlington, Ballyduff. He has won warm encomiums from the residents of Orono for his ability as a teacher and his kind, courteous demeanour.

Dr. J. A. McLellan, high school inspector, has made a report on the Perth collegiate institute, in which he states, "I am of opinion that the school suffers from the frequent changes in the staff. There cannot be any fair degree of perseverance so long as the board continues to pay assistants but little more than half the amount they pay the head master. I believe the salaries of the assistant masters are lower than those paid in any other collegiate institute. Such a man as Mr. Jamieson (English Master) is certainly very poorly remunerated at \$700."

Mr. Ballantyne, M.P.P., spoke some friendly words for teachers, in the discussion on the item in the estimates for the superannuated teachers' fund, last month. He concluded his remarks by saying that teachers were not well paid, and he thought that those entering the profession would not care to be put on the superannuation fund, but would prefer to spend their money as they pleased. He believed the reason of the present scarcity of teachers was owing to the increased severity of the qualifying examination, and hoped that if salaries were not to be raised, there would be no further attempt to make the standard higher.

A case of considerable interest was heard at Plattsville last month before Jared Kilborn, J. P., and David Peat and John Shearer as associate magistrates. The plaintiff, David Sillers, teacher of S. S. No. 5, in the township of Blandford, complained that Wm. Brash did on the 18th ultimo, assault the teacher, and use profane and indecent language, and interfere with the order of the school. The case was fully substantiated by James Smith aged 16, Thos. Forbes aged 15, and Robert Hughes, aged 13 years. The defendant put in a defence, but lost the case. Fine \$4 and costs, amounting to \$11.50.

Dr. McGuigan has been appointed professor of botany at the Western university.

Mr. H. W. Hoover, who, a short time since was principal of Hagersville union school, has been appointed head master of the Danville, P. Q., graded school. He possesses many qualities which eminently fit him for the onerous and responsible position he is about to fill; and the members of the school board, and other friends in Danville, are to be congratulated in having secured Mr. Hoover's services, as he is reputed to be a diligent and successful teacher.

Mr. Tait, who came to Highland Creek so highly recommended from the Port Union school, is giving good satisfaction, as was expected. He has already won the esteem of the pupils, and no doubt his labors as an earnest instructor will be as much appreciated here as in his late school, and he will assuredly gain the same respect in this section as was so manifestly shown by the very handsome memento and address he was presented with at his departure from Port Union.

Donmill college for ladies, Oshawa, opened last week with a good attendance.

The attendance in the different departments of the Brampton model school, of which Mr. A. Norton is head master, is very good. Sixteen teachers in training were examined at the close of the term and all passed. Mr. Welsh, who was head master of the model school, has been appointed assistant in Guelph high school.

Some improvements and alterations have lately been effected in Brampton high school, to meet the demands of a largely increased attendance, and additions have been made to the staff of teachers. The head master, Alex. Murray, M.A., takes senior mathematics and classics; D. S. Patterson, B.A., (Toronto Univ., gold medallist), late head master Chatham high school, takes English and modern languages; J. Hume, B.A., (Queen's Univ.) instructs the juniors in science and mathematics; and T. Blain, B.A., (Toronto Univ.) is the assistant classical master. The pupils have nearly completed arrangements for the formation of a Literary Society in connection with the high school and we hope to be able to report progress in this matter very shortly.

## MANITOBA.

Four additional teachers have recently been employed for the Winnipeg schools, to enter upon their duties on the first Tuesday in February.

The examination of the pupils of the normal school is now in progress, the examiners being the superintendent of education, the inspector of city school, the principal, and the principal teachers in the city schools.

A collegiate department has been opened in connection with the Portage-la-Prairie schools with Silvanus Phillips, B.A., lately from Ontario, as its teacher. There are now eight teachers at Portage-la-Prairie.

The authorities of St. John's college have just signed a contract for the erection of the north wing of their new college and the warden's residence. The sum to be paid is \$46,500, and the work is to be completed by the end of December next.

Messrs. Heber Archibald, B.A., of the firm of Archibald Howell & Vivian, and W. R. Mulock, B.A., of the firm of Bain, Blanchard & Mulock, both graduates of Toronto university, have been appointed members of the council of St. John's college, and the authorities of Manitoba college have appointed John F. Bain, B.A., of Queen's university a member of their college council.

The Rev. A. L. Parker, M.A., fellow of St. John's college was admitted to the priesthood on Sunday, January 7th, by the most Rev. the metropolitan of Rupert's Land.

An English society has lately promised £1000 stg. towards the endowment fund of St. John's college.

## NOVA SCOTIA.

Mr. W. S. J. Davidson, teacher of the advanced department of the Clementsport (Annapolis Co.) school was found dead in his bed on the morning of Thursday, December 28th.

Dr. Honeyman, curator of the provincial museum, has completed the Nova Scotia collection of marine invertebrates and small fishes for the great fishery exhibition in London. Dr. Honeyman holds a high rank among our Canadian naturalists.

The executive committee of the provincial educational association met in the committee room of the legislative council chamber, Halifax, on the 3rd ult. The chief business of the meeting was the preparation of a programme of exercises for the next annual session of the association. It is understood that very satisfactory arrangements were effected. Several members of the committee strongly urged that Halifax should be chosen as the place for the ensuing meeting. This point was not finally decided.

The report of the associated alumni of Acadia college for 1882 is an interesting volume. Its preface describes with some minuteness an important change which has recently been effected in the constitution of the governing organism of the college. This is henceforth to be known as "the Senate of the University of Acadia College." The functions of the senate pertain chiefly to the internal management of the college. The senate is composed of the Faculty, Fellows and Scholars of the university. The Fellows are six graduates so appointed by the governors on nomination of the Faculty, the Scholars, twelve graduates so appointed by the governors on nomination of the associated Alumni. The Fellows are *ex-officio* members of the Board of Governors. A large part of the report is occupied with the address delivered at the service held in June last to commemorate the labors and achievements of the late Dr. Cramp.

The committee of the provincial educational association deputed to consider further the subject of a uniform course of study for high schools and high school departments, also met at Halifax on the 3rd and 4th ult. Several members of the committee were unable to be present. The following were in attendance: The principal and professor of the provincial normal school, the mathematical and English masters of the Halifax high school, principal McKay of Picton academy, inspectors Roscoe and McKenzie, and Messrs. Denton, Owen and Lay, principals of the county academies at Kentville, Lunenburg, and Amherst. It is hoped that the outcome of this conference will be a course capable of being effectively carried out in our advanced schools.

The "Acadia Science Club" previously referred to in these notes has started a scientific monthly called *The Acadian Scientist*. The Club is endeavouring to foster the study of science by prescribing for its members a course of scientific reading, and by founding examinations in certain subjects. The *Scientist* contains some interesting articles. The following is the directorate of the Club: *President*, A. E. Coldwell, A.M., instructor of natural science, Acadia college, Wolfville, N. S.; *Directors*, *Physiology*, C. W. Roscoe, A.M., inspector of schools, Wolfville, N. S.; *Geology*, Alexander McKay, Esq., mathematical master in Halifax high school, Dartmouth, N. S.; *Botany*, A. H. McKay, B. Sc., principal Picton academy, Picton, N. S.; *Natural Philosophy and Astronomy*, Prof. A. E. Coldwell, A.M., Wolfville, N. S.; *Chemistry*, J. F. Godfrey, Esq. principal Windsor academy, Windsor N. S.; *Zoology*, A. J. Pineo, A. B., principal high school, Wolfville, N. S.; *Mineralogy*, S. K. Hitchings, B. Sc., state assayer and principal high school, Biddeford, Maine, *Secretary and Treasurer*, A. J. Pineo, A. B., Wolfville, N. S.

Alexander McLeod, Esq., a merchant of Halifax, recently deceased, bequeathed the residuary interest of his large estate to Dalhousie college. The bequest is estimated to be of a minimum value of \$150,000, and may not improbably amount to nearly double of that sum. The only condition attached thereto is that the college must continue non-sectarian in its character. The direct object is to enable the Governors to establish three additional professors.

### QUEBEC.

Bishop's college school, Lennoxville, of which Rev. Isaac Brock, M.A., is the rector, has largely increased in attendance this term. This school and the college are situated in one of the most beautiful and healthy localities in the Province, and from what we saw of the interior arrangements of the school, there is nothing neglected which can tend to the comfort and physical welfare of the pupils.

The Young Ladies' college at Dunham, under the efficient superintendance of Mrs. Hadden, principal, has nearly doubled its attendance. The closing exercises in December were so creditable that considerable interest in them was manifested in the neighborhood.

Mr. A. D. McQuarrie is doing good work in Buckingham school and his efforts are well appreciated in the locality. He evidently is "abreast of the times," and his school is a credit to him.

There is at present quite a large attendance in the Industrial college, Lachute, of which Mr. C. S. Holliday is head master. Mr. T. Haney, the English master, is spoken of as an indefatigable, successful teacher.

School matters in Aylmer, (Que.) are greatly improved since the appointment of Mr. Raleigh J. Elliot as principal, who is ably assisted by Miss McLean. If a better school building could be obtained it would leave little else to be desired there in educational matters.

The school commissioners of Danville have built a commodious, brick school house, capable of accommodating 200 pupils, in place of the academy which was burned in the conflagration that devastated a large portion of the town last year. A head master from Ontario has been appointed, and classes will be formed for three assistant teachers, by which means the commissioners hope the town will be second to no other of a similar size in the province in educational advantages.

It is a pity that a larger amount of departmental aid cannot be given to the Magog model school, as the work done in it by the principal, Mr. W. H. Mayo, and his assistants, is acknowledged to be most satisfactory. The school building is a credit to the town in external appearance and interior arrangement, and the school commissioners take much pride in maintaining its good condition.

The academy at Stanbridge East is making good progress under the head mastership of Mr. Alson Burnett.

Mr. J. McIntosh has a very large attendance in the Granby high school and his efficient labors are much appreciated in the town. In the district school Miss McLean, who is a thoroughly progressive teacher, is doing good, earnest work. Some important improvements in school arrangements are spoken of as contemplated by the school commissioners, which if carried into effect will result in a better plan for advancement to the high school, and introduce the benefits of the graded system.

Mr. R. M. Campbell has greatly improved the high school, at Three Rivers, since his appointment, and his efforts have met with every encouragement on the part of the school board. The attendance has increased over 300 per cent, and the greatest satisfaction is felt at the result of his judicious and efficient management. We are pleased to know of his success.

### REVIEW.

OUR LITTLE MEN AND WOMEN—*D. Lothrop & Co., Boston.*—Among the large number and great variety of illustrated periodical literature for juveniles this beautiful monthly magazine occupies a prominent position. It is finely illustrated and contains some attractive stories which, in the number for January (vol. iv. No. 1), are descriptive of Christmas scenes in "Merrie" England, Germany, Egypt, and Australia. The geographical coloring thus given tends to encourage a taste for a branch of study generally more useful than interesting, and makes this class of supplemental reading serve a double purpose. Price \$1.00 a year.

### MAGAZINES.

THE NORTH AMERICAN REVIEW for February opens with a symposium in which six prominent theologians, representing as many religious denominations, give expression to their views upon the question of the "Revision of Creeds." Prof. Alexander Winchell, in an article entitled "The experiment of Universal Suffrage," institutes a profound inquiry into the essential conditions of stable popular government, which he finds to be, substantially, virtue and intelligence; but the conditions, he maintains, are absolutely unattainable under our existing political system, where an electorate either ignorant or vicious, or both, by the mere force of superior numbers practically nullifies the suffrages of the better and wiser portion of the people, whose right to control the government of the commonwealth is grounded in the very nature of things. Bishop McQuaid writes of "The Decay of Protestantism," and in an essay to prove his thesis, makes a very adroit use of the admissions of protestant writers. "The Political Situation" is the joint title of two articles, the one by Horatio Seymour, the other by Geo. S. Boutwell, who offer their respective views upon the causes of the recent overthrow of the Republican party. An article by Dr. D. A. Sargent, on "Physical Education in Colleges," treats a subject of prime importance to the welfare of the youths in our higher educational institutions. Finally, there are two articles on "The Standard Oil Company," Senator Camden of West Virginia defending that corporation against its assailants, and John C. Welch setting forth the reasons for condemning it as a dangerous monopoly. Published at 30 Lafayette Place, New York.

### GLEANINGS.

For love is ever the beginning of knowledge, as fire is of light.—*Carlyle*.  
Of all consolations, work is the most fortifying and the most healthy, because it solaces a man not by bringing him ease, but by requiring effort.—*Taine*.

When the Greek Aleximander was told that the very boys laughed at his singing, he replied, "Then I must learn to sing better."

We of old Miletus have been always taught that words should be subordinate to ideas, and we never place the pedestal on the head of the statue.—*Landor*.

Indignation may often be averted, offence avoided, or, good will secured, by the choice of smooth words, or the reverse effect may be produced by the use of opprobrious epithets. *Schuyler*.

What is done for effect is seen to be done for effect, what is done for love is felt to be done for love. A man inspires affection and honor, because he was not lying in wait for these.—*Emerson*.

How few of us often stop to think of the low ends aimed at in education, or the imperfect methods, or how little we really know about the true philosophy of teaching. In teaching, labour is the inexorable condition of success. To be good teachers, we must be good learners,—not satisfied to tread forever the tread mill of routine, get no further, and rise no higher. We must knock at the door of knowledge before it will be opened.—*A. S. Abbott, Iowa*.