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# JOURNAL OF EDUCATION.

FOR THE PROVINCE OF NOVA SCOTIA.

## THE ANNUAL REPORT ON EDUCATION.

For the benefit of those into whose hands the Annual Report may not come, we give the following sections. The information which these passages convey are of especial importance, and ought to engage the careful attention of all who take an interest in the welfare of our Public Schools.

### SCHOOLS.

During the winter 1535 teachers and assistants taught 1487 schools and departments in 1236 school sections. During the summer 1650 teachers and assistants taught 1602 schools and departments in 1365 school sections. These have been distributed not very unequally in proportion to the population. There are in the Province 1679 school sections, of these 250 have been without schools during the whole year, 413 during the winter, and 314 during the summer term. These sections compose a very considerable population of children of the ages, which are considered school going, but who, notwithstanding all the facilities provided for education in this Province, are advancing to mature life uneducated. The educational work of these 250 sections, as intended and provided for by the laws of the Province, extends to every class, and is adapted to every social position, fitting the recipient of the provided boon, for useful and successful life. Although our common schools do not aim at what is called higher class education, their elementary work secures a training by which business habits are formed, and the accurate business man secured to the community. English grammar, history, geography, arithmetic, geometry, practical mathematics, reading and penmanship, are branches which are taught, and receive particular attention in all our common schools. If a pupil is well grounded in these he is furnished with appliances through which, with integrity and persevering industry, life will be no failure; with these requisitions, our young men wherever their lot may be cast, need not want but a fair field to secure fortune to themselves and honor to their native Province.

### ATTENDANCE.

For convenience sake we shall re-insert the following table by which may be seen at a glance the progress in attendance of pupils at school in the course of the last seventeen years.

Years.	No. of Pupils registered in Winter.	No. of Pupils registered in Summer.	No. Different Pupils registered during the year.
1856.....	29451	33163	
1857....	31626	37087	
1858....	31051	33430	
1859.....	39319	37844	
1860.....	33210	37376	
1861.....	31409	35895	
1862.....	34111	38022	
1863.....	33311	41656	
1864.....	39265	37516	
1865.....	35151	43771	
1866.....	45131	56017	
1867.....	61718	70075	
1868.....	63083	72141	
1869.....	72756	75523	
1870.....	74321	76237	
1871....	71759	77235	
1872.....	70780	76496	

Not Reported.

71059  
83048  
88707  
93731  
91496  
92858  
91637

These figures tell a volume of truth; they tell how education has been expanding its influence, an influence which has been gradually but effectively embracing the whole of our population. From it, too, we derive the assurance that results, yet more valuable and gratifying to the friends of education may be anticipated with almost absolute certainty.

It has been remarked that the children of 250 school sections have not, during any part of the year, been enjoying the blessing of education which the institutions of our country so amply provide for them. I have also to state that 16,137 children between the ages of 5 and 15 years residing in sections having schools, did not attend school during the winter term, and that 13,383 provided with like privileges did not attend school during the summer term. The following extract from the report of the Rev. R. Summerville will show the extent of this evil in Kings, a county standing at the front rank of our educational movement.

“There are more than 300 children in the county, for whose education no provision has been made for several years, and the number between 5 and 15 years of age, resident in sections where school privileges were provided during the year, not in registered attendance, exceeds 200. How long shall this state of things continue? Until we have some sort of compulsory enactment. I must not occupy space in urging the necessity of immediate action in the matter. It would be to repeat what I have already said in former reports.”

I regret extremely to have to say, that in the attendance generally there has been a decrease. A reference to the subjoined tables will show that during the year 1872 the number of pupils of both sexes attending school was 1221 less than in 1871. I shall take occasion again, under the heading of teaching, to refer to this deplorable fact. I will, however, here remark that from year to year the County Inspectors and others have continued to suggest *compulsory attendance*. My own views, as expressed in the Report of last year, remain unchanged, nevertheless I think it probable that ere many more years shall have passed, the public mind will be sufficiently trained and reliable upon this point, so that, without the risk of litigation and at last, partial failure likely to occur were it immediately attempted, to enforce such a law; some measure be adopted to make attendance at school obligatory for some portion of the year.

I am persuaded that even now a step might be taken in this direction with good results, were it the law that, in every school section in which there are a certain number of children of age to attend school, and a certain amount of taxable property, there shall be a school. Many sections now destitute would have a school; and as the tax-payers of such sections would be obliged to sustain it, they would, in all probability, if only to get some return for their money, send their children. I am quite sure that such a change in the law is in entire harm my with the spirit and purpose of the whole scheme of free education, and would prepare the way for an act for compulsory education generally. Such an amendment of the school law would produce other benefits. At many of our annual school meetings, generally the first question considered is: “Shall we have a school?” Obstructionists raise a dispute on this, get up a debate, manage to throw the meeting into confusion, and thus, too often, carry their point in whole or in part. Such an act as I have suggested would settle this often vexed question; and the object of the meeting would then be simply to decide upon the sum required for the maintenance of the school, and to transact general business. By this course alone I think that the number of children not attending school would be largely diminished.

### EXPENDITURE.

It will be seen that the Provincial Government has during the year expended the sum of \$171,395 97, at the same time the expenditure by counties has amounted to \$95132 77-100,

while that of school sections has been \$311220. In comparing these figures with corresponding ones for the last previous year it will be seen that in Government Expenditure there has not been much change; in all probability it has reached what for some time to come, may be regarded as the maximum figure. The average cost of registered pupils during the year 1872 was \$5 59-100, a slight increase in the average cost of 1871.

#### TEACHERS.

For the winter term we have—

A decrease of 11, 1st class male teachers.  
 " " 10, 2nd " " "  
 " " 21, 3rd " " "

Showing a total decrease of 42 male teachers of all grades. In the same term we find an increase of 7 female teachers, making a total decrease of 35 teachers for the winter term. It will here be observed, that not only is there a decrease in the number of teachers employed, but the quality is deteriorating, vacancies left by the higher grade teachers being filled, if filled at all, by those of inferior grades, and women taking the place of men. This deterioration is a matter upon which I have had cause to comment in a former Report, but the evil instead of being in process of removal is, as yet, on the increase.

The fact that there has been a lowering of the standard of our teachers, and an actual decrease, both in their numbers, and in the number of pupils attending school during the year, is not inspiring to the friends of education. Various causes for these facts may be suggested. This state of affairs may, and there is reasonable ground to believe that it will, prove to be temporary only. The attendance of pupils at school has steadily increased for a number of years; it was but natural to expect that when the attendance had reached what might be considered a maximum according to population, fluctuations such as this, owing to a concurrence of temporary causes not always quite explainable, might not unreasonably be expected; as we have already seen, however, this alone cannot account for all the falling off in the present instance. Another partial cause is, the great and increasing scarcity and consequent high price of labor; a state of affairs which induces many of the poorer people to keep their children away from school, that they may work. The employment of so many teachers of the lower grade, and the consequent inferior character of schools taught by such teachers may be another cause, since that would have a tendency to keep larger and more advanced children from school. It is to be feared however, that the principal cause, and one to which those already mentioned are in a great measure subordinate, is the indifference of a portion of the people to the blessings of education. Doubtless there is a portion of our population who are disinclined to do anything for themselves or for their children in this matter, beyond what the law compels them to do, and were these people able they make their deleterious influence felt, just in those districts where the education of the people is farthest in arrear, and where it is most required.

Lapse of time under the working of our present educational system, will undoubtedly cure the evil referred to, for much must be expected of those who are yet young, and who, as a rule, are enjoying the immediate benefits of a system of free education, when they in turn become parents of families. We have to seek the acceleration of the cause I have already advocated in means for securing a more general maintenance, where such is practical, and in a better attendance of pupils. As for elevating the general standard of the teachers employed, or at least arresting its downward tendency, that is a matter in which little or nothing can be done by legislative enactments. We can only appeal to the common sense and proper feelings of the people themselves in an effort to reform. It is through the wretched, mistaken idea of false economy, that low class teachers are substituted for those of a higher class, and not at all because the latter cannot be had, but low grade teachers are employed because they are "cheap." To the really sensible man such a reason for such an act seems to be tainted with a feeble mindedness, little short of insanity. Any healthy toned thinker knows, that, as in too many other things, what in the service of a teacher is secured merely on account of its cheapness is very apt, in the long run, to prove excessively dear.

Our Inspectors continually and forcibly in their annual Reports present this evil, and warn trustees and sections of the baneful results. We make one or two quotations that the subject may not be passed over and too soon forgotten. Daniel McDonald, Esq., of Pictou County, one of our most experienced and devoted Inspectors, remarks on the above as follows:

"This inadequate support has a most baneful effect upon the schools. Trustees are necessitated to engage cheap teachers, and as in everything else, the cheap article is not of much value; the people become dissatisfied, and being unable or unwilling to see the true cause, Adam like, cast the blame upon others."

"Whilst this instability continues, efficiency will be retarded. In regard to the cause of this, I can but reiterate that assigned in former years, viz: *insufficient remuneration*. Sections that give a fair remuneration, and evince even a moderate appreciation of services and interest in the school, have no difficulty in securing and retaining the service of competent teachers."

"As nothing can be gained by concealment, the true state of matters must be brought to light, even though unfavorable. During the last year there has been a decrease in the number of higher grades of teachers employed, as compared with the preceding year, and a consequent increase of the lower grades."

In 1871, Grade A	5	B	36	C	59
In 1872, "	2	29	56		

Decrease,	A	3	B	7	C	3
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"This was not attributable to the scarcity of teachers: the supply was in excess of the demand. Some young men, and first-class females remained idle, and many removed to other counties. Many who could not afford to remain idle had to content themselves with low salaries. The superabundance of cheap teachers filled up the schools. The result is now manifesting itself. The demand for male teachers and first-class female teachers cannot now be supplied, and I fear some schools will remain closed for the next term in consequence."

"Increased remuneration must be provided, and the number of female teachers reduced by dispensing with the grade E. Let the country and the Government look at the matter fairly, and adopt measures necessary to secure the object desired. For every year of service exceeding five, increase the amount payable from the provincial funds: and give a proportionate increase for continuance in the same section. School sections should look forward to provide a manse for the teachers' use as an inducement to continued service.

"A glance at the salaries paid should convince all that teaching affords no inducement (in this County at least) for young men to choose it as their profession; nor yet is the amount at all commensurate with the expense and toil of preparation for the profession."

A Munro, Esq., of Victoria, makes the following judicious remarks: "The frequent change of teachers in this County and throughout the Province is a great drawback to the advancement of education. Trustees, when they get a faithful teacher, should by every means within their power endeavor to retain him, for his services are invaluable, whereas the indifferent or careless is worth almost less than nothing.

"The remuneration in general is so small that an active and ambitious young man will only engage in teaching as a stepping-stone to something better, though in too many cases the teacher is paid more than an equivalent for benefits received."

#### EXAMINATION.

By a Minute of Council, there will hereafter be an annual examination of teachers, and not as heretofore, a semi-annual one. This change receives the approval of our most experienced inspectors and teachers, and good results may be expected from it. Candidates failing in one examination are almost sure to come up at the next, and owing to the former frequency of examinations the preparations were very inadequate; and so numbers came and failed, thereby imposing a large amount of work on this department, and necessitating a large and needless expenditure of the public money. From the number of school sections to be provided with teachers, and the number of teachers holding licenses, the inference might be that the supply is largely in

excess of the demand, and it is evidently true that there are plenty of teachers, if sections will pay them liberal, or even adequate salaries; and that one examination in the year will be found ample to continue the supply. Semi-annual examinations, too, had the effect of continually thrusting into the work of teaching inexperienced and cheap teachers, to the exclusion of the experienced; and thus many of those who are well qualified for the work, and who were conscious of their own worth, have retired to other employments, leaving oftentimes the inexperienced and inefficient to fill situations which, under all circumstances, should be entrusted only to those who are well trained and familiar with the duties and obligations of their profession.

#### NORMAL SCHOOL.

The importance of maintaining a Normal School need scarcely be insisted upon. Such institutions are universally admitted to be essential to any system of free public education; and the development of our scheme renders the sustaining of such an Institution a pressing necessity. It may be presumed that the time is passed when it was necessary to attempt to prove the value of such schools, for it is equal to proving that teachers should be trained for their peculiar work. To question this would be to reject as worthless the experience and judgment of the best instructors of the day. I do not hazard much in saying, that of all the professions of the age, none more emphatically demands a thorough drill and professional training than that of the instructor of youth. This training and efficiency of the teacher make the difference between a good school and a poor one, between a high and a low educational status, between success and failure in every thing that hinges upon a preparation for the work of life.

The extension of the Normal School term is therefore undoubtedly a step in the right direction; for hereafter we shall hope to send from that Institution pupil teachers of a much higher training than during the past, and more completely prepared for the discharge of their professional duties. This Institution has thus far had difficulties to contend with; among which may be noticed too low a qualification for entrance. With too many of the students there is a want of that general information which is so essential a part of education, and which is not likely to be obtained during the course of professional study and training at the Normal School. Many of the pupils come to the school from remote and almost isolated corners of the Province, and if they pass successfully the examinations required of them, go to their professional work without that culture which is obtained only by mingling somewhat generally with society. This kind of culture tells upon the school taught by the teacher since he moulds the manners and habits of the impressible minds of his pupils. In the natural course of things, the manners and habits of those pupils are, certainly to a great extent, those of the teacher; refined or coarse, polite or vulgar, attractive or repulsive.

The necessity for new buildings for the Normal School is becoming increasingly evident, and must, ere long, engage the attention of the Government. From more quarters than one, it has been hinted, that the city of Halifax is the most desirable location for such an Institution as the Normal School, that the facilities offered by the city of attending a partial course at Dalhousie College, of visiting the Provincial Museum and attending the School of Science connected with it, and other similar advantages, the equivalent of which is not to be had elsewhere in the Province, would be of great value in the fitting of pupil teachers for their work. At this time I shall not press this matter or even offer a decided opinion, but as the day is not distant when a large outlay of money will be demanded for the erection of new Normal School buildings, it is well that public attention should be directed to the subject and opinions matured thereon.

#### HALIFAX SCHOOLS.

The Report of the City Commissioners hereto appended exhibits evidences of an increased interest in this city in the cause of education. Last summer I spent some time, in connection with the Chairman of the Board of City Commissioners, and also with several other members of the Board, in visiting a number

of the Halifax schools. While this visitation revealed undoubtedly much room for improvement, it also brought to notice unquestionably great evidences of progress. Whilst no less than 6750 pupils of various ages and of both sexes are being instructed in the elements of a good English education in the city of Halifax, there is still to be lamented the absence of an Academic Department, or any public provision for higher education in connection with the public schools of the city.

Although Halifax has no public Academic Institution, I am happy to be able to say that it has a school of science, taught in the Provincial Museum by Dr. Honeyman. I am quite sure this school has a promising future, and is, even now, supplying a desideratum in the education of the Province.

#### MISCELLANEOUS.

From the tables it will be seen that we have six colleges, attended during the year past by 255 students. Seven special academies attended by 617 students. Ten county academies attended by 440 students. In the Deaf and Dumb Institution 46 pupils from various localities, under an efficient instruction, are receiving that which, more than any other earthly blessing, alleviates the sadness of the isolated condition.

The Report of the Inspectors cannot fail to afford interest, as they disclose the working of our school law in the several Counties. From these Reports, as well as from the tabulated statistics, an accurate view may at once be taken of the past year's results of our educational work.

And although there has been a diminution in the whole number of pupils attending our public schools during the past year it must not be forgotten that, for a number of previous and continuously succeeding years the increase was large—much beyond the increase in the general population of the country. As already intimated, such fluctuation as that of which I have made mention, might not unreasonably have been anticipated, especially when so many known causes of disturbance were operating; and this isolated fact affords us, in itself, no grounds for distrustful apprehension as to the future.

If we form our opinion of the future of the educational scheme of Nova Scotia, from the determination of all our intelligent communities throughout the Province to have section schools; or from a wide-spread and rapidly growing conviction that our public schools must be sustained; or from the waning influence of a now almost inoperative but once formidable hostility; or from the cordially combined activity of men of all religious creeds and parties to make public free education in Nova Scotia a success; then must we cherish the unwavering belief, that notwithstanding all disturbing causes and, as I believe, temporary fluctuations, the working of our present educational system is destined to manifest the testimony of its own success, in the growing intelligence of the people, and as a consequence, in the rapid progress which shall attend the varied and extended efforts, social and commercial, moral and intellectual, in the great onward movement of civilization.

#### THE MISSION OF POVERTY.

G. E. SCRINGER.

**B**ORNE on the wings of imagination, let us suppose ourselves standing upon some lofty eminence at whose base the world lies spread out before us; and by some magic touch our eyes receive strange power and we are enabled to take in the vast scene, to view humanity in all its diversified phases. As we gaze on the wondrous scene, behold here is a palatial residence surrounded by fairy grounds, with all the appurtenances for all the enjoyments of which the human mind can conceive, or which the heart can desire. Lounging within the magnificent portico we behold the possessor and lo, he is a man of uncultivated tastes, devoid of all true nobility of soul, a little above the brute which wallows in the mire; while yonder in the very shadow of this towering pile is a humble cot, surrounded by a narrow plat, void of all ornament save a few plain flowers, but wide enough to produce hunger, sorrow and broken hopes. Near the open doorway we behold a man of refined tastes, of towering intellect, which in its soarings seems almost to pierce the very heavens, and snatch

a coal of inspiration off God's altar—a man a little lower than the angels, and as we hear him raise his voice in humble prayer to his Heavenly Father, we ask where, oh, where is that God of justice and mercy whom he so earnestly beseeches? And we exclaim this world is indeed a world of chance—a vast lottery from which men blindly draw blanks and prizes. But as we turn sorrowfully away another scene arrests our attention.—Yonder is a populous city. It is at the same time a thing of beauty, power and grandeur, as with its charming parks and palaces, its vast warehouses and manufactories, and its towering domes, it sits majestic on its throne by the sea—the great emporium of the West, and as we see the vast number of railroads, centering here like so many great arteries along which flow the life-giving power of the nation, we exclaim, "Here, indeed, is the great heart of the valley of the Mississippi, the pride of the west and the admiration of the world." But while we stand entranced by this scene of beauty and power, lo! the fire-fiend has burst his shackles. On, on, from roof to roof, he rushes with fearful rapidity, hissing scorn and defiance at man's futile efforts to check his onward course; and in a few short hours the work of destruction is done the fair scene is swept from our view, and nought remains but a shapely pile of ruins to mark the pathway of the mighty conqueror. We see men gathering in sad groups around the gloomy monuments of their departed wealth, and most wondrous scene! we behold the former millionaire and the hod-carrier shaking hands; men who never before had spoken together, for the towering commercial palace of the one had shut out the humble cot of the other; but now the partition wall is broken down, and they discover they are being bound together by ties of common sorrows, interests and hopes, and as we hear their words of sympathy and manly resolve, and see the true nobility of soul—that which fire cannot destroy, rising in grandeur from the ruins of the fallen city, the mystery is solved; we are enabled to pierce, through poverty's mask, and see written upon her forehead in unmistakable characters, "My mission is to develop true manhood." Could we enter some vast structure in which is gathered all the great products of man's intellect, we would find the great majority labeled with the names of those who have trodden poverty's secluded paths, for she has been the companion of our greatest thinkers as they wended their way through the mighty, labyrinths of thought; and who, as he glances o'er history's pages cannot see her as a mighty power forcing men out into the fields of speculation? When will the names of Stephenson and Watt, be forgotten? Their praise is sounded forth by every steam whistle; is borne to old ocean's remotest isle by every steam ship, as they are recognized as being among earth's greatest benefactors, in making the steam engine the permanent realization of the Genii of eastern fables. The genius of Antonia Canova breathed upon the rugged marble and it became a thing of life; and as we gaze on his master pieces, how closely he seems linked in power to that omnipotent One who took the image of clay in his arms and breathed into it the breath of life; yet poverty first guided his chisel. A Sir William Jones could converse in all the languages of the Orient; yet he first learned the language of poverty. The finest strains of poetry have issued from souls swept by her fingers; for as long as man's æsthetic shall hold its sway, so long will the names of Robert Burns, Scotland's bard, and William Falconer, the poet of the sea, be cherished. Yes, as we gaze o'er earth's mental battle-fields we see that out from the ranks of poverty have come forth men, to contend manfully against ignorance in every department of human thought. In her valley genius has plumed herself for loftiest soarings, and everywhere is it writt'n that poverty develops man mentally, But its grandest design is seen in his development morally. Virtue's champions and followers in all ages have been gathered largely from here lonely dale. Looking back into the shadowy past we behold a Socrates with poverty's insignia unmistakably written upon him, walking about among men uttering the most sublime moral truths; and in the light of the Christian civilization of to-day his foot-steps though made by swollen, naked feet are the grandest along the pathway of heathen history. Behold an Amos Lawrence, from whose lips dropped pearls of purity, and whose generous hand was ever open to bless mankind; yet poverty acknowledged him as her own and early sent him out to battle with the world. See also, the great emancipator, our own

beloved Lincoln, coming out from beneath her shadows to redress the wrongs of mankind; to assert the God-given rights of humanity. But glorious truth, the ultimatum of all illustrations, is the fact that the King of kings, the Prince of philanthropists chose poverty for his companion.—With the scepter of universal dominion in his hand he chose a humble place among men as the most fitting to develop God-like virtues; and so they who have followed in His foot-steps have been earth's greatest benefactors. As poverty deals with individuals so she deals with nations. Behold her as with majestic tread, she comes down through the ages. For two centuries did she tarry at Persia's magnificent court, seeking recognition, until spurned and insulted she sealed the proud empire's fate and the victorious host of the great Macedonia swept over the fertile plains. Passing into Greece long did she tarry, hoping that in that land of patriots, philosophers and poets her mission would not be disregarded. But the Grecian philosophers, while they could evolve the most ingenious systems of philosophy, could never understand her sublime character; and at last, disappointed and reluctantly, she sealed the doom of that fair republic, and the victorious eagles of the Romans soared above the ruins of her departed glory. Passing into Rome, long did she linger, hoping this would prove an end to her wanderings. But the proud Roman bowing at luxury's golden altar ranked her as a plebeian, and ignored her queenly claims. Indignant, she called upon the barbarous tribes of the north and east to redress her wrongs, and imperial Rome was no more. Passing down through the dark ages, we behold her at last on Briton's isle. Here, though treated with respect, still unsatisfied, she desired a land across the sea where no tyrant had dared to erect his throne. Her eye sparkling with hope, she gathered a true and fearless band. With them she braved the ocean's power, stood on Plymouth's rock and braved the dangers of the new world. Here she tarried, her mind balancing between hope and despair until at last there was born unto her a daughter whose empire is destined to embrace the whole world, and she called her Liberty. She presided when freemen, asserting the dignity of their manhood, laid the foundation of Liberty's glorious temple, and saw in those words, "all men are born free and equal," the realization of her fondest hopes, the recognition of her sublime mission. Under her benign auspices America has indeed become powerful, with the folds of her flag tossed grandly by the stern winds of the north, and kissed gently by the zephyrs of the south. Glorious indeed is the mission of poverty as she comes to arouse man's noblest energies. Energy, that word in which is embraced all man's great achievements in the past, and with which, as a battle cry, he will go forward from victory to victory, until all nature is his dominion. Man elevated on the pedestal of his power, feels himself a god. She comes and lays her hand upon the tower of his strength and it crumbles to the dust, and thus brought down before his fellow-men, he feels that magnetic influence that binds us together in one common brotherhood, and with his sympathies awakened, and with his soul enlarged, he becomes a philanthropist, a reformer, a true man. Coming unto him as he sits amid the ruins of broken hopes and cherished plans she whispers in his ear words of hope and bids him go forth to noble warfare and glorious victory. Let others weave garlands of praise for wealth's imperial boon, and bring their costliest offering to her golden altar, but as for me let it be my highest honor to bring my humble offering and lay it at thy feet. What though thy sombre garments are damp with the dew of the night. With heaven's signet upon thy brow, it is uncircled with a radiant glory akin to that which hovered around Calvary's rugged summit, love is written upon every lineament of thy blessed countenance, while from thy lips drop the oracles of wisdom. Humanity's best friend, because in my falling tears thou dost bid me see the beautiful bow of promise and dost lead me forth on the field of conflict, where honors may be won as enduring as the stars set in the eternal coronet of the skies, therefore will I honor thee.

—The French Academy has refused to enroll the name of Darwin among its members, assigning as a reason that "he has too far sacrificed science to renown and reason to imagination. to deserve a place in the first rank of scientists."

**GOVERNMENT GRANTS**

*In aid of Public Schools, paid to Teachers for the Term ended 31st October, 1873.*

*The Asterisk (\*) marks those employed in Poor Sections.*

**CO. OF CUMBERLAND.**

TEACHER.	Number of Teaching days employed.	Amt. paid to Teacher from Pro. Treasury.
<b>GRADE A.</b>		
George, F. W.	106½	\$
<b>GRADE B.</b>		
Angus, Nathan B.	111	60 75
Atkinson, J. Howe	101	54 59
Brownell, Geo. W.	105	56 75
MacAulay, D.	111	60 00
Patterson, W. G.	109	58 92
Reid, Henry	110	59 46
Taylor, W. F.	111	60 00
Hannah, Robt.	111	60 00
McCabe, James	111	60 00
Poole, John J.	105	56 75
Withers, Edwd.	98	52 97
<b>GRADE C.</b>		
Atkinson, Michl. C.	108½	43 98
Angus, Samuel	111	45 00
Atkinson, Clara P.	111	45 00
Barns, Margaret	107	43 37
Brown, Amey	111	45 00
Baird, Annie	110	44 59
*Black, Oressa	110	59 46
Charman, E. G.	101	40 94
*Charman, Mary	74½	40 26
Creed, Annie D.	111	45 00
Carter, Amelia E.	111	45 00
Canfield, W. B.	87	35 27
Carter, Amelia H.	111	45 00
Downing, J. R.	111	45 00
Elderkin, C. M.	107	43 37
Finley, Aaron	111	45 00
Freeman, Eliza	109	44 19
Glennie, Victoria	85	34 44
*Ibbitson, Celia A.	110	59 46
Kennedy, Evan	106½	43 17
Logan, Ellen A.	110	44 59
Logan, Rebecca	109	44 19
Logan, Elizabeth C.	111	45 00
McLeod, Mary A.	111	45 00
*McCarthy, John	111	60 00
Mills, Emma C.	63	25 53
McAlmon, Lorenzo	110	44 59
Peers, Maggie	111	45 00
Phelan, Julia	110	45 59
Pipes, Thos R.	109½	44 29
Robinson, Fredck.	111	45 00
Skimmings, L. M.	110	44 59
Skimmings, S. L.	110	44 59
Tupper, M. Alice	110½	44 79
Travis, J. M.	111	45 00
West, Julia	111	90 00
*Kerr, Jannie	106	57 29
Kerr, Aleida Y.	111	45 00
Salter, Rachel	110½	44 79
Scanlin, Martin	110½	44 79
Sharp, Sarah E.	109	44 19
Smith, Sarah E.	111	60 00
Dobson, Mary	109	44 19
<b>GRADE D.</b>		
*Atkinson, Ella J.	111	40 00
Bennett, L.	109	29 46
Brown, Elenor J.	103	27 84
Baird, Lucinda	111	30 00
*Canfield, R. J.	111	40 00
Dobson, Eliza	109	29 46
David, Ella Jane	111	30 00
*Dobson, Jane	110	39 64
Fulton, Theresa	89	24 05

Finley, Sarah E.	111	30 00
Freeman, Eunice	111	30 00
*Hunter, Olevia	110	39 64
Johnson, Mary E.	55	14 86
Kerr, J Lottie	111	30 00
McLean, H. Jane	107	28 91
McDonald, Cassie	111	30 00
McLean, I. C.	111	30 00
Mills, Phebe A.	111	30 00
*MacKinley, Arwill	111	40 00
*McDonald, Alex.	99	35 67
*McIntosh, Isabella	110	39 64
Pagan, Mary Ann	111	30 00
Reid, Charles	111	30 00
Silliker, Sophia M.	111	30 00
*Smith, Mary E.	111	40 09
Smith, Bessie	110	39 64
*Schurman, Olive	110	39 64
*Simpson, Maria A.	111	40 00
*Swan, Hannah C.	111	40 00
Tuttle, Lizzie A.	111	30 00
*Tattie, Annie M.	111	40 00
Wood, Emma	111	30 00
Corbett, Joan	111	40 00
Roberts, C. S.	8	2 16
Smith, Emma A.	111	40 00
Scott, Maggie E.	104	28 10

**GRADE E.**

*Bent, Alice D.	87	23 51
Canfield, M. L.	111	22 50
Carter, Clara	99	20 07
Dobson, Mary	111	22 50
David, Elenor L.	110	22 30
Doyle, Elizabeth	111	22 50
Holmes, Emma J.	111	22 50
Hollis, Mary J.	107	21 68
Ibbetson, Kate	91	18 44
*Ibbitson, Charlotte	101	27 30
*Ibbitson, Maggie J.	98	26 49
*King, Mary Jane	107	28 91
McDonald Annie J.	110	22 30
*McNab Mary J.	111	30 00
Murphy, Mary A.	109	22 09
Ross, Jennie	111	22 50
Ross Mary	110	22 30
*Rutherford, R.	111	30 00
*Barnes, Regia	53	14 32
*Fife, Annie	111	30 00
*Hanning, Emily	111	30 00
*Smith, Maggie E.	46	12 43

**CO. OF GUYSBOROUGH.**

<b>GRADE A.</b>		
Ross, Wm. B.	103	\$
<b>GRADE B.</b>		
Boyle, Peter	111	60 00
Cameron, William	111	60 00
Cameron, John D.	111	60 00
Cameron, Angus	111	60 00
Campbell, Peter	111	60 00
Fraser, D. Stiles	108½	58 65
McKay, Christopher	111	60 00
Russell, Alex.	74	39 99
Sinclair, John H.	108	58 38
<b>GRADE C.</b>		
Archibald, Matilda	110	44 59
Cahoon, Susan	111	45 00
Cameron, Jessie G.	111	45 00
Campbell, Catherine	110	44 59
Cameron, Jessie M.	111	45 00
Davidson, John	111	45 00
Elliot, James	111	45 00
Frencheville, Sarah	108	43 78
Kennedy, Finley	111	45 00
McDonald, Angus	108	43 78
McLeffy, Maggie	111	45 00
McNaughton, Bella	111	45 00
Peart, Harriet	111	45 00
Sutherland, Kate	111	45 00
Young, James W.	104	42 16

**GRADE D.**

Condon, Annie	111	30 00
Cassidy, John	109	29 46
Cameron, Catherine	101	27 30
Dauphine, N	111	30 00
Fisher, David	90	24 32
Forbes, Janet	111	30 00
Gunn, Sophia	111	30 00
Hattie, Emma	111	30 00
Hart, Sarah	111	30 00
Hattie, Agnes	111	30 00
Martin, Ellen	111	30 00
McFarlane, Alex.	111	30 00
McDonald, Effie	111	30 00
McGuire, Maria	111	30 00
McLane, John	111	30 00
McNaughton, Chris-	111	30 00
tina	111	30 00
McDonald, Josiah	111	30 00
*McKinnon, Jane	111	40 00
McLane, Susan	111	30 00
*McDonald, Sarah	111	40 00
Peart, Emma	110	29 73
Scott, Lenora	107	28 91
Taylor, Ann	87	23 51

**GRADE E.**

Archibald, Amanda	111	22 50
Ehler, Maggie	103	20 87
Grant, Cynthia	87	17 64
Keating, Annie	111	22 50
McKeen, Ann	97	19 66
McDonald, Arabella	99½	20 17
O'Donnell, Maggie	111	22 50
Queen, Maggie	107	21 68
Reddy, Maggie	111	22 50
Scott, Esther	111	22 50
Taylor, Eliza	89	18 04
Wheaton, Maria	111	22 50

**CO. OF HALIFAX.**

<b>GRADE A.</b>		
Alex. McKay	104	\$59 43
<b>GRADE B.</b>		
Freeman, Nelson	95	51 38
Greenough, J. B.	110	59 46
Herdman, Wm. C.	53½	28 89
Herdman, Wm. C.	49½	26 75
Hogan, John P.	109	58 92
McNab, G. P.	104	59 43
Richardson, F. W.	111	60 00
<b>GRADE C.</b>		
Archibald, A. M.	103	41 76
Do. Arthur W.	111	45 00
Do. Bessie	94	33 12
Do. Julia W.	65	26 35
Do. Mary Aubry	109	44 19
Atwater, H. W.	100	40 54
Bacon, Bessie	108½	43 98
Ballantine, J.	110	44 59
Black, M. E.	106	42 97
Braden, Mary E.	111	45 00
Blackadder A.	107	43 37
Bruce, Annetta	87	35 27
Bruce, Jane	111	45 00
Creed, Elizabeth P.	111	45 00
Cunnabell, W. W.	61	24 72
Eaton, Flora J.	82	33 24
Falconer, Libbie C.	104	44 57
Fox, Elizabeth	111	45 00
Hall, Sarah C.	35	14 19
Hefler, Annie	111	45 00
Lindsay, Rebecca	110	44 59
Logan, Jessie	101	40 94
McArthur, M.A.H.	100	40 54
McKay, John M.	96	54 86
McKenzie, J. M. K.	111	45 00
Major, Kate H.	104	44 57
Marshall, Lucy A.	104	44 57
Marshall, Maggie	104	44 57

Meagher, E. J.	100	42 86
Munroe, Alice	111	45 00
Munroe, Susan J.	104½	42 38
Murray, Joseph H.	105	42 57
Reddy, Danl. J.	111	45 00
Richardson, Geo. J.	111	45 00
Romans, William	111	45 00
Stewart, Mary	111	45 00
Tupper, Margaret	111	45 00
Walsh, Alice	98½	39 94
Whittier, Sarah	112	45 00

**GRADE D.**

Archibald, Hannah	111	30 00
Archibald, Maggie	105	28 38
Archibald, H.W.D.	30	8 11
Bates, Lydia J.	111	30 00
Bates, Mary A.	109	39 28
Bayer, Olivia	89	32 07
Beck, Hannah	111	30 00
Boak, H. W. C.	104	28 10
Carten, C.	110	39 64
Carten, Emma M.	98	35 31
Clark, Mary H.	108	29 19
Covey, Silas A.	99	26 75
*Crook, Eliza'eth M.	103	87 12
Fisher, Walter	93	25 13
Geddes, E.	111	40 00
Gibbons, John	86	23 24
Hefler, Jane	111	40 00
Henry, Flora	95	25 68
Hosterman, Mrs. C.	110	29 73
Kirby, Anais	106½	28 78
Leslie, Isaac K.	111	30 00
Logan, J. Robert	65	17 57
Lynch, Prescilla J.	111	30 00
Maloan, Thalia A.	111	40 00
Mason, Samuel J.	111	30 00
McCarthy, Michael	111	40 00
McCurdy, Janet A.	110	29 73
McElmon, B. K.	108	29 19
McKay, Alex. P.	103	27 84
Ogilvie, Amelia	109	29 46
Ogilvie, A. H.	110	29 73
O'Toole, Maria T.	104	29 71
Reid, Margaret J.	111	30 00
Richardson, M. P.	105	37 84
Roache, Jane	107	38 56
Roome, H. R.	102	27 57
Rutherford, Agnes	100	27 03
Umlah, Lucenia	111	30 00
Webber, Lalia B.	108	29 19

**GRADE E.**

*Bacon, Amelia	96	25 95
*Bissett, Sarah	111	30 00
*Bruce, Matilda	91	24 59
*Clark, Eliza	111	30 00
*Cook, Emily	58	15 67
Cruikshank, M. J.	103	21 89
*Downey, Charlotte	100	27 03
Fisher, Georgina	28	5 68
Fraser, Ada	108	29 19
Johnston, Sarah	106	21 48
*Joseph, Annie E.	96	25 95
*Kent, A. B.	111	30 00
*Landells, Isabella	111	30 00
*McIntosh, Margaret	104	28 08
McLaren, Mary E.	107½	21 78
Marvin, Amelia J.	109	29 46
Parker, Ellen	111	22 50
Stevens, Sophia R.	109	22 09
*Umlah Isabella	110	29 73
*Wood, Maria Ann	109	29 46
McCarthy, Michael	} For last term—	12 3 24
Grade D.		

**ASSISTANTS—GRADE E.**

Bellefontain, Bridget	107½	14 52
<b>CITY OF HALIFAX.</b>		
Abnis, Brother	93	\$53 14
Artz, J. A.	105	60 00



Upper North River	17	696½	9	47	Boutillier's Point,	47	2256	27	18	*Graham's,	21	1917	31	20
Kemptown	17	1087½	14	53	St. James,	47	2283	27	53					
Upper Pietou Road	28	1536	20	02	Head Harbor,	42	2337	23	17					
Harmony	37	1915	26	09	Victoria,	43	2610	31	82					
Smithfield	22	1118½	19	73	Albert,	51	2829	31	09					
Upper Brookfield	—	—	—	—	Lower Ward,	72	3849½	46	40	Landell's,	39	2209	26	03
Earlton Road	33	1116	15	20	Haggart's Cove,	47	2149	29	52	Cook's,	50	3300	39	77
Colters	20	1312	18	27	Indian Harbour,	62	268	32	40	Lake Egmont,	55	2592	31	21
Alma	—	—	—	—	Peggy's Cove,	40	2093	32	46	Meagher's Grant,	11	1739½	20	06
Riversdale	15	1516	20	65	West Dover,	40	2118	29	14	Little River,	73	3553	42	82
Stowiacke Road	21	1690	23	03	Upper Prospect,	80	2815	33	92	Gladwin,	15	2893	31	50
					Ketch Harbor,	61	118	14	33	North School,	50	2981	35	06
					Herring Cove,	98	5719½	68	91	Taylor's,	37	1616	10	85
					Hammond's Plains,	76	3573	43	06	Reid's,	39	2995	36	10
					Bedford,	47	2443½	27	01	Jiggin's,	66	3512½	42	60
					Lower Sackville,	—	—	—	—	Sedgwick,	33	1886	22	74
					Upper Sackville,	36	2212½	26	67	Archibald's,	48	2515	30	32
					Dartmouth,	543	35959½	433	40	Hutchinson,	45	561	6	80
					Montague,	52	3568½	43	01	Henry,	51	2761	33	31
					Waverley,	62	3610	43	51	*Dutch Village,	25	1895	30	41
					Fall River,	55	2702½	32	58	*Kerr's,	22	1091	17	51
					Oldham,	44	2199½	26	51	*Dean,	51	3005½	48	30
					Preston Road,	50	3080	37	12	*Chaplain,	25	739	11	88
					Eastern Passage,	60	3111	37	50					
					S. E. Passage,	71	3236½	39	01					
					Cow Bay,	47	2935½	35	39					
					Cole Harbor,	33	1443	17	59	Petpezwick,	46	2231	26	92
					Lawrencetown,	39	1929	23	25	Musquodoboit Hr.,	53	2819	31	31
					Foot Porter's Lake,	21	1343½	16	19	Lower Jeddore,	49	2228	26	85
					Lake Porter,	44	2029½	24	46	Oyster Pond,	58	3724	41	88
					Chezsetcook,	229	14779½	178	12	Lakeville,	28	1243	14	97
					Head of do,	66	3539	42	61	Porter's Passage,	19	1401	16	88
					Lower East do,	53	3182	38	35	Ship Harbor,	53	3512	42	33
					*East Dover,	47	3807	61	18	Shoal Bay,	55	3518½	42	11
					*Shad Bay,	26	2085	33	51	Pope's Harbor,	51	3123	37	61
					*St. Andrews,	6	516½	8	79	Spry Harbor,	55	2282½	27	51
					*Beech Hill,	28	708½	11	38	Spry Bay,	76	6041½	72	85
					Green Head,	14	548	6	60	Sheet Harbor, W.,	80	5143	65	60
					Goodwood,	15	587	7	08	Sheet Harbor, E.,	62	3735½	45	02
					*Lower Prospect,	32	1949	31	18	Salmon River,	50	3068	36	97
					Pennant,	28	2162	26	05	Newdy Quoddy,	74	5720	68	94
					*Harrietsfield,	20	680	10	93	Kirker's,	52	3037	36	61
					Portuguese Cove,	57	2973½	35	84	Moser's River,	53	2974½	35	84
					*Kempt Tower,	18	1637	26	31	Nicumtau,	37	2203½	26	56
					*Springfield,	No School.				*Musquodoboit Hr.,	33	1910½	30	70
					*Cross Roads,	No School.				*Buzer's,	36	1817	29	67
					*Maroon Hill,	31	1487	23	89	*Lower Jeddore, E.,	27	1318½	21	17
					*Beaver Bank St.,	22	1445½	23	22	*Clam Harbor,	14	1748	28	00
					*Windsor Junction,	43	2437	39	17	*Mooselands,	23	1807	29	04
					*Grand Lake,	37	1272½	20	45					
					*Now Road, Preston,	48	3335	53	59					
					*Devil's Island,	23	2056½	32	95					
					*Salmon Hole,	8	510	8	20					

"WHAT IS WRIT IS WRIT."

BY WM. J. DAVIS.

Their line is gone out through all the earth, and their words to the end of the world. [Psalm XIX.]

YOU may be interested to know how astronomers calculate the distances of the heavenly bodies from our planet, the Earth. One means is by parallax. What is parallax? Parallax is the relative alteration in position of a body viewed from different points; and we can use this relative alteration as a basis of calculation in a simple geometrical problem. It is a process similar to what is called triangulation in land-surveying. We wish to determine the shortest distance from us of an inaccessible object, separated from us, let us say, by an interflowing river. Our plan is to take severally two points of observation; first connecting them by a straight line whose length we measure, we draw imaginary lines from the ends of this base-line to the object on the other shore; then measuring with proper instruments the angles thus formed, we have three known elements, of a triangle from which to determine, among other things, its altitude; this altitude is the distance we seek to know. The object we looked at from two different stand-points did not absolutely change its position, but appeared to do so; it was we, the observers, who moved. But the relative alteration of position enabled us to get a basis for a strictly mathematical calculation. In estimating the distances from us of some of the planets we use a known distance on the Earth's surface as a base; in estimating the distances of some of the fixed stars any mere line measured on the Earth's surface would be entirely inadequate—for we may speak of all distances on the Earth as absolutely trivial in comparison with the vast cosmical quantities with which we present-

ly have to deal. As the Earth revolves about the Sun in an orbit which it takes three hundred and sixty-five days to traverse, if on a certain night we observe a star directly overhead, and then again six months thereafter, when the Earth reaches the opposite point of its orbit, we have a base-line of 183,500,000 miles, which may help us to a conclusion. But so far are the fixed stars from us that in but few cases does there appear any relative change in position, even when viewed from opposite points of the Earth's orbit. Let us suppose that by the aid of the most delicate micrometrical instruments we have just observed the exact position of a star, and then quicker than the lightning's flash have speeded to the other end of our base-line, 183,500,000 miles long. Now once again let us look at the star. It is precisely where we left it in the sidereal firmament. If it was directly overhead a moment ago, our instruments assure us that its relative position is identically the same now as then. No parallax has been found. This is almost the invariable result of astronomical observations conducted for the purpose of calculating stellar distances; but in a few instances a slight parallax has been detected, sufficient for making a calculation which perhaps leads to within a few billion or trillion miles of the true result. Suppose that by parallax we have calculated the distance of a Lyre and find it, in round numbers, to be 122,689,700,000,000 miles—and for all we know it may be distant from us the square or the cube or any other power of this number—we can only say these figures represent a certain incomprehensible distance on the *hither* side of which the star can not be. What idea do these figures (beyond the wildest dream of an insurance agent when reporting the assets of his company) convey to the mind? Who can perceive their relation to the unit? Whose fancy can overleap the yawning chasm that separates us from the radiant



sun glistening so serenely on the farther side?

Mathematicians tell us that we can form no correct idea of numbers beyond the few hundreds or thousands used in regard to matters of every-day life. We will therefore try to appreciate this interval by leading the mind to it gradually.

The distance of the Earth from the Sun is 91,750,000 miles; of the planet Neptune 2,803,000,000 miles. Let this be borne in mind while we glance at some one of the brightest stars. Between this and the star of our system (the Sun) there is a Gulf of space, to convey an idea of which is now our endeavor. We may get a general, relative conception of the interval referred to by comparing it with the interplanetary spaces. If, for example, we suppose the Earth to be only one foot from the Sun, then Neptune would be thirty feet from that luminary, and the star *a Lyrae*, at the very least, *two hundred and fifty-three*. If *a Lyrae*, you may say, is only two hundred and fifty-three times the distance of the Earth from the Sun, that is a matter very easily taken in by the imagination. But our statement as just written may mislead you; the sentence should read: The distance of the Earth from the Sun being taken at one foot, the distance of Neptune would be thirty feet, and that of *a Lyrae* two hundred and fifty-three miles; that is to say, five thousand two hundred and eighty times the distance our first account seemed to show.

In general we can not conceive of distances like those with which astronomy deals except by representing them by the time occupied by certain moving bodies in traversing these distances. A cannon-ball propelled from the Earth at a uniform speed of five hundred yards a second would occupy ten years in reaching the Sun. Sound, suppose it to have the same speed in the air as on the surface of the Earth (1090 feet a second), would require fourteen years for the same journey. If a railroad through space united the Earth and the Sun, a train of cars, traveling at express-train speed (36 miles an hour), would not reach its solar terminus till the end of two hundred and ninety-one years—leaving the Earth to-day, this suppositious train would not arrive at the Sun till the year 3161. But in attempting to conceive these distances by the aid of any considerations of velocity, we should leave out of sight altogether such nothings as the speed of a railroad-train, of sound, or of a cannon-ball. If, however, we take into our minds the velocity of light, we may receive some assistance. Let us add therefore that the light of the Sun, which moves at the rate of 212,000 miles a second, must occupy seven minutes twelve seconds in reaching the Earth.

So we may assume the distance from the Earth to the Sun as our unit of measure—our celestial yard-stick—for appreciating the distances of the stars. To proceed by easy stages, let us take the stars that are nearest to us. The star *a* in the constellation of the Swan is distant from the earth 336,000 times our unit of measure. If any one desires to calculate the same distance by the time occupied by its light in its passage, this light would spend five years in its transit from the star to us. If you do not remember the distances of some of the other stars of the first magnitude, we ask your attention to the following statistics, which may be gathered from any good work on astronomy.

TABLE OF DISTANCE OF CERTAIN STARS FROM THE EARTH

NAME.	Distance (Sun's distance = 1).	Parallax (seconds.)	Light traverses this distance (212,000 miles a second) in
<i>a</i> of Centaurus.....	224,000	0.9187	8 years.
<i>β</i> of Cygnus.....	366,000	0.5633	5 "
Vege.....	1,337,000	0.155	13 "
Sirius.....	1,376,000	0.15	10 "
Arcturus.....	1,624,000	0.127	22 "
Polar Star.....	3,078,000	0.087	42 "
Capella.....	4,484,000	0.046	61 "

Since therefore the light transmitted to us by *Capella*, occupies sixty-one years in its journey, if by some celestial catastrophe this magnificent sun should be blotted from the firmament, we should still see it for sixty-one years thereafter shining undimmed in its paradoxical splendor.

Now we have given as incidents a few stars whose distances have been measurably guessed at, with the time it takes a ray of light to traverse those distances; yet there are others so far

removed from us that even light, speeding with the velocity ascribed to it, could not and does not reach the Earth from those mysterious regions in less than one million years. One million years did we say? There are "nebulae" which through the magical lens of the telescope are this instant disclosing the secrets of a *million ages* by-gone. In a word, the events which at this moment we behold in those worlds are the identical events which interested their inhabitants ten hundred thousand centuries ago. All the stars visible to us may each form one of a series of clusters, the rest of which are invisible through distance; that is, the intervening space between our world and them is so vast that the electric tidings of their birth have not yet through the lapsing myriads of years been able to traverse the awful interval. But some time in the far future the news will come. Let the hand of Omnipotence destroy one of these spheres, and the murmurous waves of light that this morning left it will wander forever, telling of his handiwork.

The heavens declare the glory of God.  
And the firmament sheweth his handiwork.

Suppose that a host of active intelligences were deployed throughout space, at intervals of twelve million miles, whose duty it was made to watch for the last flickering flame of an orb thus dying. Each sentinel on the far-reaching line would note the expiring ray just one minute later than his neighbor one post nearer to the star than himself. How many ages, think you, would elapse before the sentry on the extreme outpost would cease to see the extinct sun?

But the spirit of the Creator is everywhere, pervading all things, permeating every thing. In the fact of his omnipresence lies the proof of his omniscience. God, as we have said, being omnipresent, pervades all space; being all-wise, he is equally conscious in all places: so this last emanation of an annihilated world, traveling forever, would at some point of his grand existence ever be present to the Divine apprehension. Thus it is, we suggest in awe and reverent humility, the Creator may perpetually take cognizance of his every act of creation. The mutations of time may be telegraphed through the interstellar spaces, yet there will ever be stations which the message will reach only in the future. Thus it is the Past is also Present with God.

A child is born, and, passing through the years of his youth and manhood reaches a green old age; when

—comes a frost, a killing frost,  
And—when he thinks (good, easy man,) full surely  
His greatness is a-ripening—rips his root,  
And then he falls.

Do his deeds die with him? No; every ray of light that flashed the news of the follies which marred or the virtues which illustrated his career continues through the ages to bear the tidings to the Divine Intelligence. Thus is man's history written in letters of living light; and the record is imperishable.

May it not also be that the man, having lived say three-score and ten years, if taken, after death, to a point in space distant five and a half million times our astrometrical unit, and his soul, incorporate, made to travel toward the Earth a little faster than twelve million miles a minute—may it not be that he would pass in review the scene of his own death and his every deed done in the body from the grave to the cradle?

THE BLOOD IN ITS RELATIONS TO THE BRAIN.

BY LENSFORD P. YANDELL.

IT was one of the theories of Pope, who has been styled the philosophical poet of England, that

"From nature's chain whatever link you strike,  
Tenth or ten-thousandth, breaks the chain alike."

The chain which the poet fancied that he could see extending through nature can certainly be traced in the animal economy, every function of which is so closely connected with every other that disorder of one leads soon to derangement in all. Unless, for example, the food be properly digested by the stomach so as to furnish the materials for nutrition, the muscles in a little while feel the want of nourishment, the heart becomes faint, and every process of life is enfeebled. If the heart, as the result of any disturbance of its delicate machinery, ceases to distribute the blood over the body, atrophy is the consequence, muscles?

nerves, brain, stomach alike failing in their functions. If the lungs for only a few minutes had in their office, the blood becomes unsuited to the living system, the brain is invaded by torpor, and all the manifestations of mind are obscured. And so when the brain suffers from any cause, whether by violence or disease, not only are all mental phenomena deranged, but the muscles become disobedient to the will, the lungs are impeded in their action, and the heart fails to circulate the blood.

Every living thing, vegetable and animal alike, has a circulating fluid out of which all the parts of their organisms are constructed, and through the medium of which all their vital processes are carried on. This in plants is known as sap, and however it may vary in color, in animals it is called blood. During winter the sap ceases to circulate in most plants, and then they appear to be dead; but when the warmth of spring returns the nutrient fluid begins to flow again and the functions of life are all renewed. In all the more highly organized animals the blood is red, but in nearly all the invertebrated families it is colorless or white, while in some mollusks it is blue, and in insects it is yellow, green, or brown. The vertebrates all have red blood except a single species of fish, the amphioxus, which differs from the rest of the family in having no brain, being a sort of connecting link between worms and the true fishes.

The blood furnishes the store from which materials are drawn for the fabrication of all the parts of the bodies of animals, and besides affords a stream into which the waste tissues of the body are emptied as it pursues the round of the circulation; for the animal organization is in a perpetual state of decay, and while every moment the organs are taking from the blood something necessary to their nourishment, they are constantly pouring into it particles which have accomplished their work and are no longer suited to the living system. The circulating mass is thus always on the verge of pollution through the natural wasting of the tissues, which goes on with a rapidity proportioned to the energy with which the functions are performed. If the removal of these effete matters is arrested for the shortest time, the blood becomes unfit for its highest offices, and before long is converted into a defiled current, carrying poison to every part. The depuration is effected by the respiratory process, and the worn-out matters are not only removed, but in the change which they undergo are made to warm the body they are about to leave.

In the lower tribes of the animal kingdom, we have seen, a nutrient fluid of a low grade meets the wants of their systems. They perform their functions on blood of a green, blue, white, or yellow color. As we rise in the scale of being the blood too rises in character. Though red in fish and reptiles, the lowest of the vertebrates, it is cold, and has fewer globules and relatively is much less in quantity than in the higher classes. Its circulation in them is slow, and may be interrupted for a great while without serious inconvenience to these cold-blooded creatures. Their nervous systems exhibit only the rudiments of the complex structures which are met with in the mammalia. Their brains are simple in organization and in size contemptible. Reptiles and fish enjoy no independent heat, the temperature of their bodies rising and falling with that of the medium in which they live.

With the development of the nervous system, and especially of the brain, the respiratory function needs to be developed, and a more complicated circulation becomes necessary. A fish has a single heart, which sends all its blood to the gills to be aerated. The heart of a reptile is double, but the separation between the cavities is incomplete, and a portion of the blood passes at once from the right to the left side without entering the lungs, owing to which its circulating fluid is an admixture of venous and arterial blood. This is true of most reptiles; but in the alligator and in crocodiles, which stand above frogs, toads, and turtles in the scale of life, a special provision is made for supplying the brain with pure arterial blood. Before this fluid, returning from the lungs, has mingled with the general mass in the heart, arteries filled with it are sent off to the brain. The mingled arterial and venous blood supplies their muscles, and their viscera are nourished with venous blood, showing that these organs can execute their functions on a fluid quite unfit for the offices of the brain.

The renovation of the blood in the lungs is brought about by

the agency of oxygen, that marvelous constituent of the atmosphere which has been well named vital air. It is to inspire oxygen that the lungs are in ceaseless motion. The first instinctive effort of the new-born child is to inhale this vital air, as the last struggle of the expiring man is to command the receding current. In the lungs the blood is brought into contact with this air, only the most delicate animal membrane intervening between them. It enters them, charged with the debris of the wasting body, of a dark purple color, and leaves them to return vitalized to the heart, of a bright scarlet hue. Oxygen has mingled with it and carbonic acid has left it. For every volume of the former imbibed it is freed from a corresponding volume of the latter. The oxygen flowing in arterial blood through the system unites with the disintegrating tissues, and by oxidizing them, or burning them up, maintains animal heat. The poisonous carbonic acid resulting from this oxidation is returned to the lungs with the venous blood, and escaping through the coils is expired with the residual air.

By a law regulating the diffusion of gases, the purer the air we inspire—that is, the more nearly it is free from carbonic acid—the more readily will this gas quit the blood and pass into the air in the lungs. The air we ordinarily breathe contains about two parts of carbonic acid in every five thousand, and this without reference to the place where we may be. For though its specific gravity is much greater than that of the air, it is found in about the same proportion on the summits of mountains and in deep valleys, and is as abundant over the green fields of the country as it is in crowded cities where fires and the lungs of men are constantly sending forth streams of the heavy gas to poison the air. By the law referred to it is soon equally diffused through all the fields of the atmosphere. When air is inhaled containing not more than two parts of this gas in five thousand an equable interchange takes place between the gases, oxygen being freely absorbed and carbonic acid escaping freely at every expiration; but if we attempt to breathe an atmosphere into which carbonic acid enters more largely, the interchange is interrupted and respiration is soon embarrassed, until at last, a certain percentage having been introduced, no more can be made to enter it from the lungs. In easy natural respiration it has been ascertained that we expire every minute about thirty cubic inches of carbonic acid, but after breathing the same air over again repeatedly the quantity exhaled a minute falls to nine cubic inches, and none is exhaled at all when the proportion in the air inspired reaches ten per cent. And the exhalation seems to be more dependent upon the quantity of the gas in the air inspired than upon the amount of oxygen remaining in the lungs; for if it be removed as fast as generated, animals, it has been found, will live in an atmosphere from which nearly all the oxygen has been absorbed.

Expired air therefore is unfit for respiration. It is poisonous. It contains not less than four per cent. of the gas formed out of the decayed tissues, the deadly carbonic acid, six per cent. of which is dangerous to human life—half that quantity having proved fatal in fact—when formed at the expense of the oxygen of the air. In crowded houses the atmosphere is thus rendered foul in a short time when the doors and windows are closed. The carbonic acid in a hospital was ascertained to have increased to five times its usual proportion after the wards had been shut up all night; and in a lecture room of the Sorbonne where the class had been but a single hour the quantity was increased three times. The effect of this vitiated air upon health is not a matter of doubt. A hospital for women and children in Dublin, many years ago, became noted for the mortality of the infants born in it. One child in every six died of lock-jaw within a fortnight after birth. This started investigation, and the prevalence of this fatal disease was traced to impure air. The ventilation of the hospital was improved, and the infant mortality declined to nineteen per cent., and at last, under greater improvements, the deaths from lock-jaw were reduced to three or four a year.

My purpose, however, is not so much to show the importance of ventilation to the sick as to illustrate its bearing upon the brain, and so indirectly upon education. How by the light of physiology to place your pupils in circumstances most favorable to mental activity? this is the question which you ask science to

answer I need hardly say that in order to a healthful action of the mind the bodily functions must be healthy. It was pleasant conceit of the old English poet that

"The soul's dark cottage, battered and decay'd,  
Lies in new light through chinks that time has made;"

but we know that there is no truth in it. So far from new light reaching the soul through a decaying body, mind and body in this life grow and decline together, so far as any outward displays of intellect are concerned. So long as the brain remains pulpy the child exhibits only the faintest dawns of mind; and when softening of the brain occurs the old man returns to a mental condition hardly less feeble than that of childhood. This has been remarked by all; but it is not so generally known that the varying states of our feelings, that our fluctuating spirits, that our gloom and our cheerfulness, that the cast, hue, and vigor of our thoughts, that our mental brightness and dullness depend upon the tone of our brains and their supply of arterial blood. If we would think to any purpose, if we would preserve serenity of temper, we must have regard to these conditions in the organ of the mind. Healthy blood is essential to the nutrition of the brain; nor is oxygen less indispensable to that metamorphosis of cerebral tissue upon which activity of mind depends.

It follows from all this that to study to advantage there must be, *first*, nutritious food for making blood; and *second*, fresh air for preserving the blood in a state of purity required by the brain. And the instincts of the young direct them unerringly to the means for securing both these conditions. Their appetites indicate the food proper for them; and their love of exercise secures them, if they have fair play, all the fresh air their blood requires. Let me add that these yearnings of children have a significance far deeper than has been dreamed of in our philosophy of education. However trivial it may seem to us, this love of sport has reference to the highest interests of the young—to their health, their growth, their intellectual strength, and even their lives. When children play, little as we may consider the rationale, it is to hasten and invigorate digestion, to accelerate the circulation of their blood, to imbibe larger streams of vital air, to expel tissues about to decay, and to send healthful currents through their veins.

"And when they are led, now and then,  
I can make 'a great racketing noise,"

still let us not ascribe it to the motions of the old Adam in them, but set it down to an instinct implanted in them for wise and beneficent ends. Sad is the case of the boy or girl who has no love of play, or who, having the desire, is denied the opportunity. Pitiable above most of the sights we are doomed to encounter in this world is a moping, pale, dejected child. Without exercise there can be no perfect growth, no healthy functions of body, no gayety of spirit, no full development of mind. To many a child in our schools playtime is the most profitable of all the school-hours.

But we have to deal with a much harder problem; namely, how to secure this vitalizing air to a class shut up in the school room. Upon its solution will depend very much of the progress of pupils in their studies. We have now a new danger to guard against, for while admitting fresh air into the room we may be setting up cold draughts, which are hardly less to be dreaded than foul air itself. Ventilation must be so arranged as to prevent this evil. Without comfort there can be no profitable study. We look in vain for good lessons from children, whether pinched with cold or stupefied by defiled air. This is one of the problems for the architect who plans our school-edifices, and he who successfully works it out is truly a public benefactor, entitled to a larger meed of gratitude than the agriculturist who shows how two blades of grass may be made to grow where only one grew before.

The heart, as I have been describing its functions, has probably appeared to many of you far other than the organ you have been accustomed to consider it; and it may be that I seem greatly to degrade it by this scientific view of its place in the animal economy. You would perhaps prefer still to regard it with the old metaphysicians and physiologists as the seat of the moral affections, as the organ from which love and all the tender feelings as well as all the stormy passions of the soul proceed. You may be unwilling to see it thrust down by science from its high

position and reduced to the office of a drudge in the system—made a mere hydraulic apparatus, a simple force-pump for the propulsion of the blood. And yet, when we look at it curiously in this aspect, is it not still a piece of mechanism to excite our wonder? Upon the due performance of its office depend all the other functions of the body. Life is involved in its unintermitted action. The functions of nearly every other organ of our bodies may be suspended for a time without injury and even with advantage. Most of them require indeed long intervals of repose between the periods of their activity. The stomach needs many hours of inaction after digesting a hearty meal. The external senses are wearied by long vigilance and are locked up in slumber during a third part of our lives. The muscles are fatigued by protracted motion and must be relaxed for hours in order to repair their wasted energy. The brain demands absolute rest from its work, and, if not relieved by sleep from the wear and tear to which mental effort subjects it, soon breaks down. But the heart is never exhausted by the task it has to perform, needs no relaxation of its labors. The first part of our complex machinery to show signs of life, it beats uninterruptedly on, both when we sleep and when we wake, through the longest life, and is the last of all our organs to die. During these years of ceaseless labor a simple arithmetic will show that it executes not less than three thousand million pulsations, and sends coursing through the innuacurable arteries and veins at least half a million tons of blood. Wearing out its tough muscular fiber at every pulsation, it continually repairs the waste by the blood it circulates, and actually increases in size and in strength long after the other parts of the body have ceased to grow. And all this time the rhythm of its four cavities, if not disturbed by disease continues perfect, and the play of its delicate valves keeps up with mathematical precision to the last. Thus regarding the heart, will any one say that it has lost any of the attributes that excite our admiration by being transferred from the regions of poetry to the domain of a severe science?

## INTEMPERANCE.

J. OLIVER WILSON.

**B**YOND the sea there are countries whose inhabitants are frequently visited by the Simoon, a poisonous wind which, sweeping over the land, carries in its breath devastation and death alike to man and beasts. The great deserts that stretch away from these countries like silent peaceful oceans are white with the bones of the traveler, the work of this great destroyer, and will continue whitening until that day when the sandy sea shall forever unbind its victims. But far more dangerous and infinitely more destructive, is the great Simoon of alcoholic poison which to-day is sweeping our own great and beautiful land.

One has truly said: "The monster intemperance has, 'the world' for a home, 'the flesh' for a mother, and 'the devil,' for a father. He stands erect, a monster of fabulous proportions. He has no head, and cannot think. He has no heart, and cannot feel. He has no eyes, and cannot see. He has no ears, and cannot hear. He has only an instinct by which to plan, a passion by which to allure, a coil by which to bind, a fang with which to poison, and an infinite maw in which to consume his victims."

And so we, standing in the light of the nineteenth century and looking out upon the great ocean of time, heaving and surging with the desolation and ruin he has wrought, pronounce him a monster whose tyrannical sway has been most destructive and despotic, and which knows no parallel in the long catalogue of evils over which humanity stumbles into degradation and shame.

Unlike other kings his reign is a continuous one, not over a single race or nation, but over all kingdoms, republics and empires. He stretches out his mighty arm and the good, the bad, the wise, the ignorant, the great, the humble, the rich, the poor, the beautiful, alike bow beneath his sceptre. The great evil of war sweeps over a nation shaking it from centre to circumference, with the clash of arms and the roar of cannon, until the rivers and the seas run crimson with the blood of the fallen; but behind the dark cloud of war is ever the hand of peace. Intemperance with

one great grasp takes in the entire world, wrapping around it a mantle more terrible and ruinous than war, and binding with chains more galling than eternal slavery.

Coequal with the continuance of this monster is his activity. Day and night, with sagacity unparalleled, he is leading thousands of young feet astray that, otherwise, might walk the paths of virtue. Week after week, with cunning almost infinite, he presses untrudgingly the work of destruction, unmerging the arm of the strong man and turning him from honest, manly industry, to idleness, drunkenness and the gutter. Month by month he numbers his victims by the thousand—not only in the prisons and almshouses, but also in the halls of congress and the palaces of kings—for remember, intemperance is no respecter of persons. The gifted, the wealthy, the man of brilliant genius and polished wits, profound logicians, ablest lawyers and distinguished statesmen, whose burning words of eloquence, learning, ability and pure patriotism have thrown a bright and lasting halo of glory around the institutions of America—all have been assailed by this bewitching destroyer. The syren songs of bacchanalian revelry have been sufficiently seductive to allure our ablest and best men from the paths of rectitude and honor while heart of the nation has mourned at the grave of fallen greatness.

Through long and gloomy centuries intemperance has rolled its dark and forbidding waves over a sin-stricken world, claiming and carrying off its victims to that bourne from whence no traveler returns. And man who was created in the image and likeness of God, with all his vaunted reason and wisdom sank beneath that liquid wave while the wild winds of heaven sang a funeral dirge over a drunkard's grave.

Under the influence of this dread evil, empires—that once stood in majestic, defiant power—have drifted loose from their moorings. Kingdoms—that rose like the rocket, leaving behind them a long, bright train of conquest, victory and greatness, at which surrounding nations might look and admire—have tottered and fallen. Principalities—in comparison with whose grandeur our own beautiful America is but the grain of sand to the glittering diamond, have forever faded from view and been blotted out from the map of the world.

The history of the world confirms the conclusion that inebriation and luxurious ease, tend to the degeneracy of man's former natural strength and beauty. Egypt, once at the head of nations, has, under the weight of her own effeminacy, gone down to the dust. The victories of Greece let in upon her the luxuries of the east, and covered her glory with a night of ages. And Rome, whose iron foot trod the nations and shook the earth, witnessed in her latter days faintness of heart and the shield of the mighty vilely cast away. Thus, if the foundation of our nation be undermined, we may expect the towering edifices, now rearing their heads in majestic columns, to tumble down, with all their resplendent glory, and be forever gone. With the sad history of the past before us, and the established fact that the use of alcohol not only impairs the physical force, but also destroys the mental powers, should we not fear to fold our arms in fancied security longer? It is not time that the progress of intemperance be stopped? What will become of the nation if its physical and intelligent power be devoured by the ravenous appetite of effeminacy and luxury? Can the star of our glory, the star of our liberty, that now shines with such resplendent luster and radiant brilliancy, continue long in its glittering blaze?

This king of evil, this generator of all strife and discord, this destroyer of domestic happiness and natural peace and greatness, this tyrant of destitution, devastation, desolation and destruction, has reigned long enough, and I impeach him. I impeach him in the name of the one million drunkards staggering in shame and stumbling into darkness. I impeach him in the name of the sixty thousand poor unfortunate that annually fall into drunkards' graves. I impeach him in the name of the two million more than orphan children clad in rags and dying of actual starvation. I impeach him in the name of the two hundred thousand orphans annually thrown upon the cold charities of the world. I impeach him in the name of the two million children of which he robs the public school. I impeach him in the name of the three million poor women with tender, broken hearts and blasted hopes. I impeach him in the name of the two hundred thousand annually sent to the poor-house. I impeach him in the name of the four

hundred and fifty suicides that are the result of alcohol. I impeach him in the name of the two hundred thousand convicts annually sent to prison. I impeach him in the name of the seven hundred murders that sadden and terrify the year. I impeach him in the name of the twelve thousand lunatics, the work of his fiery hands. I impeach him in the name of suffering humanity, the widow, of the orphan, the fatherless, the friendless and the homeless. I impeach him in the name of the slaughtered millions of the earth.

#### CARLYLE'S STUDY.

A contributor to the *Independent* gives the following sketchy account of Thomas Carlyle's study: "Entering his study, you find nothing in the place where you expected it; 'Don Quixote,' with all his windmills, mixed up with Doctor Dick on the 'Sacrament,' Mark Twain's 'Jumping Frog,' and Carnoch on the 'Attributes.' Passing across the room, you stumble against the manuscript of his last lecture, or put your foot in a piece of pie that has fallen off the end of the writing-table. You mistake his essay on the 'Copernican System' for blotting-paper. Many of his best books are bereft of the binding, and in attempting to replace the covers 'Hudibras' gets the cover that belongs to Barnes on 'The Acts of the Apostles.' An earthquake in the room would be more apt to improve than unsettle. There are marks where the inkstand became unstable and made a handwriting on the wall that even Daniel could not have interpreted. If, some fatal day, the wife or housekeeper comes in while the occupant is absent, to 'clear up,' a damage is done that takes weeks to repair. For many days the question is: 'Where are my pens? Who has the concordance? What on earth has become of the dictionary? Where is the paper cutter?' Work is impeded, patience is lost, engagements are broken, because it was not understood that 'the study' is a part of the student's life, and that you might as well try to change the knuckles to the inside of the hand, or set the eyes in the middle of the forehead, as to make the man of whom we speak keep his pen on the rack, or his books off the floor, or the blotting-paper straight in the portfolio.

"The studio is a part of the mental development. Do not blame a man for the style of his literary apartments, any more than you would for the color of his hair or the shape of his nose. If Hobbes carries his study with him, and his pen and his ink-horn in the top of his cane, so let him carry them. If Lamartine can best compose while walking his park, paper and pencil in hand, so let him ramble. If Robert Hall thinks easiest when lying flat on his back, let him be prostrate. If Salmastius writes best surrounded by his children, let loose on him the whole nursery. Do not criticize Charles Dickens because he threw all his study windows wide open and the shades up. It may fade the carpets, but it will pour sunshine into the hearts of a million readers. If Thomas Carlyle chose to call around an ink-spattered table Goethe and Schiller and Jean Paul Friedrich Richter, and dissect the shams of the world with a plain goose-quill, so be it. The horns on an ox's head are not more certainly part of the ox than Thomas Carlyle's study and all its appointments are a part of Thomas Carlyle. The gazelle will have soft fur, and the lion a shaggy hide, and the *sanctum sanctorum* is the student's cuticle."

#### WRONG END FIRST.

"LIFE is short and Art is long," especially now-a-days. As Art is growing so very long, it fills many volumes, and it consumes more of life to learn it passably. The fine arts, and the useful arts—what a host in themselves, and the number is steadily increasing. Economy is a virtue that has many applications. There is economy of time, economy of labor, economy of emotions, economy of funds, economy of materials, economy of dress, economy of outward and inward resources, all more or less noble and virtuous.

Now, it is a grand thing to save time, if time is the stuff that life is made of. It is a grand aim to save time for our little people in school. If we can save our children, each, one year,

the children can live practically a year longer, and certainly live happier.

"Wrong end first." Yes, that is exactly the description. Wrong end first, in arranging the matter that is to be learned. Wrong end first, even worse, in selecting the matter that is to be learned by the pupils.

For the sake of hitting the nail on the head we will look into the geography, which your son is thumping and grumbling over, to-night, when you have read through this article. Look into the geography with the eyes of a merchant or a manufacturer, to see whether it is a business book, and will aid in giving a business education.

"Wrong end first!" you exclaim. Why so? Because the demands of science have overruled the demands of real life. The solar system, a compend of astronomy, the truths of natural philosophy, an outline of geology, and then a set of crabbed and wire-drawn, brain-puzzling definitions, better fitted for a veteran mathematician or jurist than a tyro; after which he begins to study the general features—mountains, rivers, seas, etc., of Asia, or, perhaps, by special grace, Europe. Ah! I see. A scientific arrangement! My boy must study Asia, then Europe, then Africa—six months or twelve months before he knows whether Boston caught fire from Chicago, or where the pine lumber from Maine would go to mill and market; whether cotton and rice grow beside Lake Erie, or ice and granite are shipped from New Orleans to the Adirondacks. The matter should be arranged according to its relative importance, not according to its scientific proportion, or its share in the education of an individual. Given, an average mind. Problem, to fit it for real life. Required, the certainties, and next the probabilities, which await it. If my son is to enter a retail dry goods store he does not need, he can never use, he would in a few years forget, the large attainments of a professional geographer. Besides, as he can not be learning everything at one and the same hour, the more geography he learned the less of arithmetic, or philosophy, or some other study, he must be learning. Whatever will be important and profitable for him to learn, let him learn, I plead, but nothing else. It will take all the time, if not double the time, he can spare to learn the various branches of knowledge that are of practical import to him. Would you freight a ship with a cargo of silks to sell in Greenland to the Esquimaux? Freight your child's mind with what will surely be needed—and needed most urgently—in the race, in the toil, in the battle, in the storm; not with mere ornaments, nor dainties, nor smatterings, nor learned lumber. So speaks sage experience, in dolorous strain, not as a prophet, but a sad victim of parental and scholastic errors.

"Wrong end first," also, in the quantity. Mr. Gradgrind is trustee, or principal, or parent. Mr. Gradgrind demands that all the scholars shall study geography three years, three months, three days and three hours, and shall learn three hundred thousand facts in that time. Done. But done with what results? Done, with triumphant success at the examinations. Shattered nerves, disgusted souls, ill-trained minds—these are the fruits.

Parents and the tax-payers have a right to expect, nay demand, something better than all this, and our teachers must see to it that they have it—have it in results, which will help the boys and girls to enter "armed and equipped" as the law of common sense demands upon the practical duties of life.

#### RULES AND HINTS FOR TEACHERS.

**U**NDER this caption we propose, from time to time, to give a few useful hints relating to the work of the teacher, premising, however, that such hints will, in many cases, be valuable only as suggestive reminders rather than original.

At all events, let the teacher govern the school rather than the school the teacher; but do not spend all the time in "governing."

You may secure aid in government and discipline from two important sources, viz:

First, by giving the pupil enough to do in the school-room; second, by creating the right kind of public sentiment.

Pupils in school, as well as grown people in society, need business, some kind of employment, and enough of it, otherwise "Satan finds some mischief still," and soon the teacher finds his hands full.

A pupil that works will govern himself; and self-government in school the teacher should aim at. Be sure you have attended to this point before you come to the subject of punishments.

Now, as to public sentiment: when this is right the school will almost manage itself; without it the teacher will have a hard task.

Therefore, make your scholars jurymen, and bring certain flagrant acts of bad scholars before them for judgment now and then, sometimes appealing to the ridiculous, but far oftener to their sense of right and wrong, and of what is proper or improper. If they have thus committed themselves to an opinion or decision, their pride will prompt them to corresponding conduct.

This public sentiment will be created and sustained largely by the example of larger scholars, to whom you should appeal in this respect.

You can, by perseverance in elevating the standard in various ways, make one course of conduct popular and another unpopular, and thus secure a very important help in your work within the school-room itself.

#### A SONG.

BY FLORENCE ANDERSON CLARK.

Gay birds with many a tuneful throat  
Are warbling from tree to tree,  
And each in every music-note  
Doth sing to my heart of thee!  
Hast thou forgotten me?  
Or ceased to care for me?  
Am I alone?  
No; I will not believe  
That thou couldst thus deceive;  
Still thou'rt mine own!

The streamlet too, as it is flowing  
Under the bridge to the sea,  
Ever, ever, as it is going,  
Doth murmur thy name to me.  
Dost thou not love me yet?  
Would I had never met,  
Never seen thee,  
If from this love of mine,  
Every breathed vow of thine,  
Thou wouldst be free.

This soft June sky, so deeply blue,  
That bends in love over me,  
This blushing rose, all gemmed with dew,  
Whisper of truth and of thee.  
Shall I then think that thou  
Hast broke thy plighted vow—  
Been false to me?  
No! by thy dear bright eye,  
I will love till I die,  
Trusting in thee.

All great leaders have been inspired with a great belief. In nine cases out of ten, failure is born of unfaith. Tennyson sings, "Faith and unfaith can ne'er be equal powers." To be a great leader, and so always master of the situation, one must of necessity have been a great thinker in action.



OFFICIAL NOTICES.

118 Teaching Days in this Term.

MINUTE OF COUNCIL.

Passed June 6th, 1872.

NORMAL SCHOOL.—PROVINCIAL EXAMINATION.—HOLIDAYS AND VACATIONS.

At a meeting held on the 6th day of June, the Council of Public Instruction passed the following minute:

Ordered, That after the present School Year, the semi-annual examination for License to teach in the Public Schools, shall be discontinued; and there shall be an Annual examination instead, commencing on the first Tuesday after the 15th of July in each year.

There shall also be but one session of the Normal School in each year, instead of two sessions as heretofore; the annual session shall open on the first Wednesday in November, and close the Friday preceding the annual Provincial Examination in July.

The Council also order, that there shall be a summer vacation of four weeks—that is of twenty week days other than Saturdays—in all the Public Schools; instead of three weeks as heretofore. After the present year, this vacation shall commence on the Monday preceding the annual examination of teachers.

There shall be a Christmas vacation of two weeks—that is of ten days other than Saturdays—in all the Public Schools, instead of eight as heretofore.

I. The Provincial Normal School.

FACULTY OF INSTRUCTORS.

NORMAL COLLEGE.

- Method, and the Natural Sciences*:—J. B. CALKIN, M.A., Esq.  
Principal of the Normal College and Model School.  
*English Language, Geography &c.*:—J. A. MACCABE, Esq.  
*Mathematics*:—W. R. MULHOLLAND, Esq.  
*Music*:—MISS ABBIE HYDE.

MODEL SCHOOL.

- High School Department, HUGH MCKENZIE, Esq.  
Preparatory " JAMES LITTLE, Esq.  
Senior Elementary " MISS M. A. HAMILTON.  
Junior do. " MISS B. ARCHIBALD.  
Primary " MISS A. LEAKE.

II. Address of Inspectors.

- Hinkle Condon, Esq. . . . . Halifax.  
Rev. R. R. Philp, B.A. . . . . Maitland.  
Rev. Robert Somerville, B.A. . . . . Wolfville.  
L. S. Morse, Esq. . . . . Bridgetown.  
A. P. Landry, M.D. . . . . Clare.  
Rev. John Ambrose, M.A. . . . . Digby.  
G. J. Farish, M.D. . . . . Yarmouth.  
A. C. A. Doane, Esq. . . . . Barrington.  
Rev. Charles Duff . . . . . Liverpool.  
W. M. B. Lawson . . . . . Lunenburg.  
R. B. Smith, M. D. . . . . Upper Stewiacke.  
Rev. W. S. Darragh, . . . . . Shinimicas, Cumber'd Co  
Daniel McDonald, Esq. . . . . New Glasgow.  
Angus McIsaac . . . . . Antigonish.  
William Uartshorne, Esq. . . . . Guysboro'.  
John Y. Gunn, Esq. . . . . Broad Cove  
Alexander Munro, Esq. . . . . Baddeck.  
Edmund Outram, M.A. . . . . Sydney.  
Rémi Benoit, Esq. . . . . D'Escousse.

III. Teachers' Agreements.

The attention of Teachers and Trustees is again called to the necessity of complying with the provisions of the Law in relation to the disposal of the county Fund. It appears from the School Returns of the past Term that some teachers have in their agreements with Trustees in respect to salary, assumed all risk as to the amount to be received from the County Fund. Such proceeding is contrary to the provisions of the law and directly subversive of a most important principle of the School system, since the pecuniary penalty imposed upon the inhabitants of the section by the absence and irregular attendance of pupils is thereby inflicted upon the teacher, while the pecuniary rewards

consequent upon a large and regular attendance of pupils at school is diverted from the people to the teacher. These results clearly tend to prevent the growth and development of a sentiment of responsibility and interest among all the inhabitants of each section, and thus measurably defeat the object of the whole system—the education of every child in the Province.

The Superintendent of Education, therefore, calls the attention of Teachers and Trustees to the following

NOTICE :

1. The COUNTY FUND is paid to the TRUSTEES of the section. The amount depends upon the number of pupils, the regularity of their attendance, and the number of prescribed teaching days on which school is open in any section during the term.
2. Teachers must engage with Trustees at a definite sum or rate. The Provincial grant is paid to teachers in addition to such specified sum.
3. The following form of agreement is in accordance with the law :

(FORM OF AGREEMENT.)

Memorandum of Agreement made and entered into the \_\_\_\_\_ day of \_\_\_\_\_ A.D., 18\_\_\_\_, between [name of teacher] a duly licensed teacher of the \_\_\_\_\_ class of the one part, and [names of Trustees] Trustees of School Section No. \_\_\_\_\_ in the district of \_\_\_\_\_ of the second part.

The said [name of teacher] on his (or her) part, in consideration of the below mentioned agreements by the parties of the second part, hereby covenants and agrees with the said [names of Trustees] Trustees as aforesaid and their successors in office, diligently and faithfully to teach a public school in the said section under the authority of the said Trustees and their successors in office, during the School Year (or Term) ending on the thirty-first day of October next, (or the thirtieth day of April, as the case may be.)

And the said Trustees and their successors in office on their part covenant and agree with the said [name of Teacher] Teacher as aforesaid, to pay the said [name of teacher] out of the School Funds under their control, at the rate of \_\_\_\_\_ dollars for the School Year (or Term).

And it is further mutually agreed that both parties to this agreement shall be in all respects subject to the provisions of the School Law and the Regulations made under its authority by the Council of Public Instruction.

In Witness whereof the parties to these presents have hereto subscribed their names on the day and year first above written.

Witness, [Name of Teacher] [Names of Trustees]

[Name of Witness]

4. Each inspector is instructed to report every case of illegal stipulation on the part of teachers, in reference to the County Fund.

IV. To Trustees of Public Schools.

1. "A relation being established between the trustees and the teacher, it becomes the duty of the former, on behalf of the people, to see that the scholars are making sure progress, that there is life in the school, both intellectual and moral,—in short, that the great ends sought by the education of the young are being realized in the section over which they preside. All may not be able to form a nice judgment upon its intellectual aspect, but none can fail to estimate correctly its social and moral tone. While the law does not sanction the teaching in our public schools of the particular views which characterize the different denominations of Christians, it does instruct the teacher "to inculcate by precept and example a respect for religion and the principles of Christian Morality." To the Trustees the people must look to see their desires in this respect, so far as is consonant with the spirit of the law, carried into effect by the teacher."—*Comments and Regulations of Council of Public Instruction, p. 51 reg. 5.*

2. Whereas it has been represented to the Council of Public Instruction that Trustees of Public Schools have, in certain cases, required pupils, on pain of forfeiting school privileges, to be present during devotional exercises not approved of by their parents; and whereas such proceeding is contrary to the principles of the School Law, the following additional Regulation is made for the direction of Trustees, the better to ensure the carrying out of the spirit of the Law in this behalf:—

ORDERED, That in cases where the parents or guardians of children in actual attendance on any public school (or department) signify in writing to the Trustees their conscientious objection to any portion of such devotional exercises as may be conducted therein under the sanction of the Trustees, such devotional exercises shall either be so modified as not to offend the religious feelings of those so objecting, or shall be held immediately before the time fixed for the opening or after the time fixed for the close of the daily work of the school; and no children, whose parents or guardians signify conscientious objections thereto, shall be required to be present during such devotional exercises.  
March, 1867.

3. "The hours of teaching shall not exceed six each day, exclusive of the hour allowed at noon for recreation. Trustees, however, may determine upon a less number of hours. A short recess should be allowed about the middle of both the morning and afternoon session. In elementary departments, especially, Trustees should exercise special care that the children are not confined in the school room too long."—*See Manual of Laws and Regulations for Public Schools, page 52, sec. 10.*

SCHOOL DESKS.

A. STEPHEN & SON are now prepared to furnish Schools with Desks made after the New York and Boston patterns, as recommended by the "Board of School Commissioners for the City of Halifax." We have already furnished several schools throughout this City and Province, and are now prepared to supply them in any quantity at lower rates and a more durable article than those imported. Information as to style and price given on application to

A. STEPHEN & SON,  
HALIFAX, N. S.

## V. Bond of Secretary to Trustees.

"The Secretary of the Trustees shall give a bond to her Majesty, with two sureties, in a sum at least equal to that to be raised by the section during the year, for the faithful performance of the duties of his office; and the same shall be lodged by the Trustees with the Clerk of the Peace for the county or district."—*Manual of School Law, page 6, sec. 25.*

This bond is to be given annually, or whenever a Secretary is appointed, and Trustees should not fail to forward it by mail or otherwise, to the Clerk of the Peace, immediately after they have appointed their Secretary. The following is a proper form of bond:—

## PROVINCE OF NOVA SCOTIA.

KNOW ALL MEN BY THESE PRESENTS, THAT WE, (name of Secretary) as principal, and (names of sureties) as sureties, are held and firmly bound unto our Sovereign Lady VICTORIA, by the Grace of God, of the United Kingdom of Great Britain and Ireland, Queen, &c., in the sum of \_\_\_\_\_ of lawful money of Nova Scotia, to be paid to our said Lady the Queen, her heirs and successors, for the true payment whereof, we bind ourselves, and each of us by himself, for the whole and every part thereof, and the heirs, executors and administrators of us and each of us, firmly by these presents, sealed with our Seals and dated this \_\_\_\_\_ day of \_\_\_\_\_ in the year of Our Lord one thousand eight hundred and \_\_\_\_\_ and in the \_\_\_\_\_ year of Her Majesty's reign.

WHEREAS the said \_\_\_\_\_ has been duly appointed to be Secretary to the Board of Trustees of \_\_\_\_\_ School Section, No. \_\_\_\_\_ in the District of \_\_\_\_\_

NOW THE CONDITION OF THIS OBLIGATION IS SUCH, That if the said (name of Secretary) do and shall from time to time, and at all times hereafter, during his continuance in the said Office, well and faithfully perform all such acts and duties as do or may hereafter appertain to the said Office, by virtue of any law of this Province, in relation to the said Office of Secretary to Trustees, and shall in all respects conform to and observe all such rules, orders, and regulations as now are or may be from time to time established for or in respect of the said office, and shall well and faithfully keep all such accounts, books and papers, as are or may be required to be kept by him in his said office, and shall in all respects well and faithfully perform and execute the duties of the said office; and if on ceasing to hold the said Office, he shall forthwith, on demand, hand over to the Trustees of the said School Section, or to his successor in office, all books, papers, moneys, accounts, and other property in his possession by virtue of his said office of Secretary—then the said obligation to be void—otherwise to be and continue in full force and virtue.

Signed, sealed, and delivered } [Name of Secretary] (Seals);  
in the presence of } [Names of Sureties] (Seals)  
[Name of Witness.]

WE, THE SUBSCRIBERS, two of her Majesty's Justices of the Peace for the County of \_\_\_\_\_ do certify our approbation of \_\_\_\_\_ (name of Sureties,) within named, as Sureties for the within named \_\_\_\_\_ (name of Secretary,) and that they are to the best of our knowledge and belief persons of estate and property within the said County of \_\_\_\_\_ and of good character and credit, and sufficiently able to pay if required, the penalty of the within bond. Given under our hands this \_\_\_\_\_ day of \_\_\_\_\_ A. D. 1866 [Names of Magistrates].

## VI. An Act to Alter and Amend Chapter 58 of the Revised Statutes "of Public Instruction," and the Acts in amendment thereof.

(Passed 15th day of April, 1872.)

Be it enacted by the Governor, Council, and Assembly, as follows:

1. The existing provision for the sectional assessment of property held by corporations and companies, mean, and shall be understood to mean, that all such property is liable to assessment in and for the benefit of the section wherein it lies, and after the thirty-first day of October, A. D. 1872, these provisions shall extend and apply to all rateable property held by any association, company or firm, whether incorporated or otherwise; that is to say, the assessment payable directly by the association, company, or firm, in respect of any property, shall be paid in and for the benefit of the section where the property lies; and if any portion of the rateable property of any association, company, or firm lies in a place not embraced in any school section, such portion shall be treated in all respects as if situate in the section where the chief works and business of the association, company, or firm are established.

2. In any case where, owing to neglect on the part of the assessors, the County Roll does not afford the information necessary for the purposes of this Act, the Trustees shall request the Clerk of the Peace to refer the Roll back to the assessors for correction or amendment.

3. The following words are added at the end of the fourth subsection of Section 35 of Chapter 29 of the Acts of 1865, entitled "An

Act for the better encouragement of Education," that is to say, and in case the three nearest Commissioners do not agree to the site of a school house the matter shall be referred to the Board of Commissioners for the District or County in which the school is situate, and their decision shall be final. In cases of border-sections where the nearest Commissioners do not agree, it shall be referred to the County Inspector, subject to an appeal to the Superintendent of Education, whose decision shall be final.

4. The seventh section of chapter 3 of the Acts of 1866, entitled "An Act to amend the existing laws relating to Education," is amended by substituting the words "Five hundred dollars" for the words "One thousand dollars" in such section.

5. Section 7 of Chapter 30 of the Acts of 1866 entitled "An Act to amend the Act for the better encouragement of Education" is repealed and the following Section substituted therefor:

"The Council of Public Instruction shall have power to draw annually from the Provincial Treasury such sum as shall be necessary for the publication of an educational journal, a copy of which shall be supplied gratuitously to each Board of Trustees for their own and the teachers' use, and also to each inspector and each chairman of examiners and of commissioners.

6. No County in this Province shall be permitted to draw more than six hundred dollars in any one year for assistance to poor districts except in cases where the academy grant is not drawn, in which case the counties shall be permitted to draw the amount of the academy grant in addition to such sum of six hundred dollars; but no more. No section employing a teacher holding a first-class license shall receive any assistance as a poor section.

7. The meeting required to be held by Section 25 of Chapter 20 of the Acts of 1865 "An Act for the better encouragement of Education," shall be held on the last Monday in September in each year instead of on the third Monday in October as prescribed in such section.

8. So much of Chapter 58 of the Revised Statutes and of the Acts in amendment thereof as is inconsistent with this Act is repealed.

9. Nothing in the first two sections of this Act contained shall apply to the school sections in the town of Yarmouth.

By Section 5 of the Act to alter and amend chapter 58 of the Revised Statutes, the Government appropriation to aid in the purchase of School Books has ceased. We would therefore specially direct the attention of Trustees and Booksellers to this Revised Section. The Council of Public Instruction will, as heretofore, prescribe the books to be used in the Public Schools, but will not aid in their purchase.

Also by section 7 of the above amendment, the time for holding the annual school meetings is changed. This meeting in future will be held on the last Monday in September, instead of on the third Monday in October as heretofore. Trustees will observe that this amendment regulates the school meeting to be held this coming autumn.

The sum required by any section, for the purchase of prescribed school books maps and apparatus shall be determined by a majority of rate-payers, present at any regularly called school meeting (to be assessed upon the section in the same manner as all other sums required for the maintenance of the school or schools.)—See Section 35, page 29 of the School Manual.

## REGULATIONS.

The following are the Regulations of the Council of Public Instruction with reference to all Books, Maps, and Apparatus purchased by Trustees for use in their respective sections.

Reg 1.—They shall be the property of the School Section, and not of private individuals.

Reg 2.—Any pupil, shall be entitled, free of charge, to the use of such school books as the teacher may deem necessary.

Reg 3.—Any section neglecting to provide a supply of books, maps, and apparatus may be deprived of the public grants.

Reg 4.—Trustees shall make such further regulations, agreeably to law, as may be necessary to ensure the careful use and preservation of books, maps, and apparatus belonging to the section.

## LIST OF TEXT-BOOKS, MAPS, AND APPARATUS.

In accordance with the above amendment, the following books are prescribed by the Council of Public Instruction to be used in all the Public Schools.

## PUPILS' WEEKLY RECORDS.

Weekly Record (for one Term).

## THE NOVA SCOTIA SERIES OF READING BOOKS.

Books No 1, 2, 3, 4, 5, 6, and 7; The art of Teaching Reading, Bailey's Brief Treatise on Education.

## SINGING BOOK.

The School Song Book.

## SPELLING BOOK.

The Spelling Book Superseded, (Eng. Ed.)

## GRAMMAR AND COMPOSITION.

English Grammar\* ; English Analysis ; Reid's Rudiments of Composition ; Bain's Rhetoric ; Dalglisch Introductory to English Composition ; Dalglisch Advanced English Composition.

In the meantime, Trustees are authorized by the Council to use whatever Grammar they prefer. Lennie's Grammar, if followed by Analysis, will, perhaps, give as good results as any.

MATHEMATICS.

The Editions of Greenleaf's Works now in the prescribed list, are the latest and most approved of these very excellent and generally used works. They are especially recommended to the attention of Trustees and Teachers.

- Eaton's Commercial Arithmetic.
- Greenleaf's National Arithmetic
- "    New Practical or Common School "
- "    New Elementary "
- "    New Primary "
- "    New Intellectual "

- Arithmetic.*—Nova Scotia Elementary Arithmetic. Nova Scotia (advanced) Arithmetic. Nova Scotia Arithmetical Table Book.
- Algebra.*—Chambers' Algebra, (as far as Quadratics). Do. Do. (complete). Greenleaf's Geometry and Trigonometry. Greenleaf's New Elementary Algebra.
- Plane Geometry.*—Chambers' Euclid, (including Plane Trigonometry)
- Practical Mathematics.*—Chambers' (including Land surveying, a brief treatise on Navigation, &c.)
- Solid and Spherical Geometry.*—Chambers' (including Spherical Trigonometry, Conic Sections, &c.)
- Mathematical Tables.*—Chambers'
- Navigation.*—Norie's, (an extended treatise).
- Chisholm's Mathematical Scale

- Bull Frames*
- Slate Wipers, (to be used without water).
- Slates.—Common Slates, (beveled frames) 6 $\frac{1}{2}$  in. by 8 $\frac{1}{2}$  in.
- "    "    "    8 in. by 10 in.
- "    "    "    9 in. by 13 in.
- Blackboard Chalks, (1 gross); Slate Pencils, per box, (100).
- Eaton & Frazee's Book-keeping.
- "    "    Blank Books, set of three Books.

WRITING.

- Payson, Dunstan & Scribner's International system of Penmanship.
- Swan's Series, Victoria Head Line.

STAPLES' PROGRESSIVE SERIES OF COPY BOOKS :

For both girls and boys.	{	Book No. 1,		For girls only.	{	Book No. 8,
		" No. 2,				" No. 10,
		" No. 3,				" No. 9,
		" No. 4,				" No. 11,
		" No. 5,				
		" No. 6,				
" No. 7,						

- Nos. 1 to 11 bound in 1 vol., with full instructions on the system (for the Teacher's desk).
- Ruled Card to accompany copy books.
- Penholders.
- Staples' Circular Pointed School Pens.
- Inkpowders.
- Rulers, 12 in. (for pupils' use.)
- Lead Pencils.
- India Rubber Erasers.
- Pink Blotting Paper.

DRAWING.

BARTHOLOMEW'S SCHOOL SERIES OF PROGRESSIVE DRAWING LESSONS.

- For beginners. } Set of 72 Model Cards, Nos. 1 to 5.
- For advanced lessons. } Sketch Book (models only), Nos. 1 to 5.

- Packages (12 slips) of blank drawing paper, for model cards.
- Blank drawing books, for model cards.
- Blank drawing paper, for Sketch Books, or model cards.
- Drawing Pencils, F, B, BB, HB, H.
- India Rubber Erasers

DIAGRAMS.

- For purposes of illustration and "Oral Lessons."
- Forest Trees (12). Natural Phenomena (30). Botanical Prints (roots, stalks, leaves, &c., 26). Notes of Lessons on do. do. do.
- Wild Flowers (96). Geometrical Figures (2 sheets). Mechanical Forces (6 on cloth) with exp. sheets.
- For purposes of illustration, and "Oral Lessons."
- Patterson's Plates of Animals (set of 10, mounted and varnished)
- Staples' Writing Charts.

GEOGRAPHY.

- Calkin's Geography and history of Nova Scotia.
- Calkin's School Geography of the World.
- Series of Wall Maps.*—
 

Nova Scotia.	Scotland
British America.	Ireland.
North America.	British Isles (in relation to the Con. of Europe.)
Western Hemisphere.	Europe.
Eastern Hemisphere.	Palestine.
England.	
- Gen'l. Map of Bible Lands.
- Globes.*—The Terrestrial Globe (12 in. diameter, bronze meridian and Quadrant)

The Celestial Globe—Classical Wall Maps—Orbis Veteribus Notus—Italia Antiqua—Græcia Antiqua—Asia Minor Antiqua—Orbis Romanus.

HISTORY.

- Owen's Chronographical Chart on rollers & varnished with Hand Books, Hodgins' School History of British America, or, Boyd's Summary, Curtis' Chronological Outlines of Eng. History, For use in adv. Com. Schools—Collier's School History of the British Empire (Revised Edition), Collier's History of Rome, Collier's History of Greece. For use in High Schools—Smith's Smaller History of Rome, Smith's Smaller History of Greece, Chambers' Ancient History.

NATURAL SCIENCE.

- Chambers' Chemistry, (with new notation)

ECONOMIC SCIENCE.

- "The Body and its Health"—an elementary work in Physiology, The Chemistry of Common Things, How Plants Grow.

CLASSICS.

- Latin.*—Bryce's First Latin Book, Bryce's Second Latin Book, Edinburgh Academy Latin Grammar, Or, Bullion's Latin Grammar, Arnold's Latin Prose Composition.

AUTHORS—OXFORD EDITIONS.

- CAESAR, de Bello Gallico, 1 vol., bound, 3S cts; Lib. I.—III. (with short notes, 1 vol., paper.
- VIRGIL, (complete), bound; the Georgics (with short notes), 1 vol., paper; the Æneid, Lib. I.—III. (with short notes), paper.
- CICERO, de Off., de Sen., de Amicit., 1 vol.; de Sen., and de Amicit., 1 vol., (with short notes), paper; Oration for the Poet Archias, (with short notes), paper.
- HORACE, (complete), bound; the Odes, (with short notes), paper

DICTIONARIES.

- White's Junior Scholar's Latin-English and English-Latin Dictionary.
- Greek.—Bryce's First Greek Book, Bryce's Second Greek Book, Bullion's Greek Grammar, or, Edinburgh Academy Greek Grammar, Arnold's Greek Prose Composition

AUTHORS—OXFORD EDITIONS.

- XENOPHON, Anabasis, EURIPIDES, Alcectis, (with short notes), XENOPHON, Memorabilia, HOMER, Iliad, (complete; Lib. I.—VI. (with short notes; 1 vol.

LEXICONS.

- Liddell & Scott's Greek-English Lexicon (abridged), Yonge's English-Greek Lexicon.

VII. Evening Schools.

The Council of Public Instruction has made the following Regulations in reference to Evening Schools:

1. Trustees of Public Schools may establish in their several Sections Evening Schools, for the instruction of persons upwards of 13 years of age, who may be debarred from attendance at the Day School.
2. Such Evening School shall be in session 2 hours; and in relation to Public Grants, two evening sessions shall count as one day. The Prescribed Register shall be kept, and a Return of the school made in the form directed by the Superintendent.
3. Books and School materials for such Evening Schools will be furnished at the same rate, and subject to the same conditions as for day schools, provided always that no pupil of an Evening School shall have power to demand the use of books free of charge.
4. No portion of Provincial or County funds for Education, shall be appropriated in aid of Evening Schools, unless teachers are duly licensed.
5. The Council would greatly prefer that the Teachers of Evening Schools should be other than Teachers of Day Schools; but where this may not be practicable, it shall be legal for the Teacher of the day school to teach day school four days in the week, and evening schools three evenings in the week.

Eaton's Commercial Arithmetic

Is for sale at R. T. MUIR'S, and at the Commercial College, Halifax Trustees of schools and others wishing to be supplied at wholesale will please apply to Eaton & Frazee, Commercial College, Halifax, or to J. H. Eaton, Commercial College, St. John, N. B.

British American Book and Tract Depository,

66 GRANVILLE STREET, HALIFAX, N. S.

RELIGIOUS MAGAZINES.

- CHEAP ILLUSTRATED PAPERS, for Parents and Children such as—
- Sunday at Home, per annum.....\$1.75
- British Workman, ..... 25
- Band of Hope, ..... 14

Specimens will be sent to any teacher who will kindly make an effort to procure Subscribers.  
Address, A. McBEAN, Secretary.



**EXAMINATION OF TEACHERS.**

THE annual examination as ordered by the Minute of Council of June 6th, 1872, will be held on

**TUESDAY, THE 22ND OF JULY NEXT, AT 9.30 A. M.**

Deputy Examiners will be strictly forbidden to admit any person to be examined who fails to be present on the day and hour named.

Candidates are required to forward to the Inspector, not later than June 1st, a written notice of their intention to be examined, and of the grade of license for which they will apply. No application can be received after this date. Candidates are to undergo Examination in the grade for which they have applied to the Inspector. Seats will not be reserved for any who do not give notification as above. Applications may be made for examination at one of the following stations:—

STATION.	ADDRESS.
Sydney.....	E. Outram, M. A., Sydney.
Baddeck.....	A. Munro, Baddeck.
Margaree Forks } Port Hood..... }	...John Y. Gunn, Broad Cove.
Arichat.....	Remi Benoit, D'Escousse.
Guysborough } Sherbrooke } }	.....Wm. Hartshorne, Esq., Guysborough.
Antigonish.....	A. McIsaac, Esq., Antigonish.
Pictou.....	.....D. McDonald, New Glasgow.
New Glasgow }	
Amherst.....	Rev. W. S. Darragh, Shinimicas.
Truro.....	.....R. B. Smith, M. D., Upper Stewiacke.
Tatamagouche }	
Halifax.....	.....H. Condon, Esq., Halifax.
Windsor.....	Rev. R. R. Philp, B. A., Maitland.
Kentville.....	Rev. R. Sommerville, B. A., Wolfville.
Bridgetown.....	L. S. Morse, Esq., Bridgetown.
Digby.....	Rev. John Ambrose, M. A., Digby.
Clare.....	A. P. Landry, Esq., M. D.
Yarmouth.....	G. J. Farish, M. D., Yarmouth.
Barrington.....	A. C. A. Doane, Esq., Barrington.
Liverpool.....	Rev. Chas. Duff, Liverpool.
Lunenburg.....	W. M. B. Lawson, Lunenburg.

Candidates are to furnish their own writing material.

Candidates already holding licenses of any grade from the Council of Public Instruction, are required to give the number of the same at the Examination.

All Candidates for License will be required, on presenting themselves for examination, to furnish a written certificate of good moral character, signed by a minister of Religion, or by two of Her Majesty's Justices of the Peace. These certificates are filed in the Educational Department, together with the other papers relating to the candidate's Examination.

The use of books or manuscripts will be strictly prohibited.

Persons not intending to engage as Teachers in the Public Schools will be required, on presenting themselves for Examination, to make payment to the Deputy Examiner as follows:—Grade E, \$0.37; D, \$0.50; C, \$0.75; B, \$1.00; A, \$4.00. Also, Teachers wishing to be re-examined in any grade for which they already hold a license, will be required to make payment to the Deputy Examiner as above.

Candidates for license of grade A., who have already made an average of 75 or upwards on Grade B, are to work papers on those subjects only which are peculiar to grade A. Such Candidates are required to present themselves for examination (with their licenses or memoranda) on Thursday noon. Other candidates for grade A, will present themselves at the opening of the examination on Tuesday.

At the examination in each year a spelling exercise shall be prepared for candidates who at any previous examination made an average of 60 or upwards in the examination for 1st class, and were debarred from receiving license of the 1st class, by reason of bad spelling; the exercise shall contain a number of ordinary English words to be written at dictation; any such candidates not making more than six errors will be granted a license of the 1st class, without further examination.

Every person examined will be informed by mail of the result of his or her examination, as soon as decided.

**NOTICE TO SCHOOL TRUSTEES.**

**R. T. MUIR & CO.,**

Box to solicit the patronage of School Trustees for

**SCHOOL BOOKS, STATIONERY  
AND SCHOOL APPARATUS.**

LONDON BOOK STORE - - - - 125 GRANVILLE ST

**WANTED.**

A Teacher holding a license of the first class (Grade B), who has attended the Prov. N. School, and can give, if required, satisfactory testimonials of success in teaching, is desirous of a situation for the ensuing Term.

Address,  
J. A. O, P. O. Box.

Wolfville, N. S., 28th March, 1873.

A first class Normal School Teacher, of two years experience, with good testimonials desires to obtain a situation as head master of a graded school in May next.

Address,  
Box, No. 14

Liverpool, N. S.

A young Lady of some years' experience in teaching, and holding Grade "C" license, seeks an engagement in a graded school the first of May next. Testimonials good.

The Superintendent of Education will receive answers.

A young lady holding a first class license, and who has had six years experience as a teacher, in the Counties of Kings and Annapolis, is desirous of being engaged the next Term, in a graded school. Good reference can be given.

Apply to the Education Office, Halifax, March 18th, 1873.

The Trustees of White Hill school section No. 4, Pictou County, desire to engage a female teacher, of the first or second class. Engagement to begin at the opening of the next Term.

Address, stating Terms, &c.

J. W. CROCKETT,  
Sec. to Trustees.

Hopewell, Pictou, N. S.

If the Trustees of any Section with the services of a first class male teacher, who has had 3 years experience, and can give good references, they please apply to

MOORE C. WADE.

Bridgetown, N. S.



**FOR SALE EVERYWHERE.**  
**Silicate Book Slates**  
FOR SCHOOLS AND COLLEGES.  
Light, Portable, Noiseless, Durable  
UNIVERSALLY USED IN SCHOOLS.  
Silicate Book Slates, Silicate Pocket Slates,  
For Lead-Pencil and Slate-Pencil.



**Silicate Wall-Slating.**  
Makes the best Wall or Wooden Blackboard.  
Put up in cans with full directions and bored for shipping safely with books and other goods.  
Price: 12x18 inches—Pints, \$1.50; quarts, \$2.50; half gallon, \$5.00; gallon, \$9.00.  
**N. Y. Silicate Book Slate Co.**  
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