

Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

- | | | | |
|-------------------------------------|---|-------------------------------------|---|
| <input type="checkbox"/> | Coloured covers /
Couverture de couleur | <input type="checkbox"/> | Coloured pages / Pages de couleur |
| <input type="checkbox"/> | Covers damaged /
Couverture endommagée | <input type="checkbox"/> | Pages damaged / Pages endommagées |
| <input type="checkbox"/> | Covers restored and/or laminated /
Couverture restaurée et/ou pelliculée | <input type="checkbox"/> | Pages restored and/or laminated /
Pages restaurées et/ou pelliculées |
| <input type="checkbox"/> | Cover title missing /
Le titre de couverture manque | <input checked="" type="checkbox"/> | Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées |
| <input type="checkbox"/> | Coloured maps /
Cartes géographiques en couleur | <input type="checkbox"/> | Pages detached / Pages détachées |
| <input type="checkbox"/> | Coloured ink (i.e. other than blue or black) /
Encre de couleur (i.e. autre que bleue ou noire) | <input checked="" type="checkbox"/> | Showthrough / Transparence |
| <input type="checkbox"/> | Coloured plates and/or illustrations /
Planches et/ou illustrations en couleur | <input checked="" type="checkbox"/> | Quality of print varies /
Qualité inégale de l'impression |
| <input checked="" type="checkbox"/> | Bound with other material /
Relié avec d'autres documents | <input type="checkbox"/> | Includes supplementary materials /
Comprend du matériel supplémentaire |
| <input type="checkbox"/> | Only edition available /
Seule édition disponible | <input type="checkbox"/> | Blank leaves added during restorations may
appear within the text. Whenever possible, these
have been omitted from scanning / Il se peut que
certaines pages blanches ajoutées lors d'une
restauration apparaissent dans le texte, mais,
lorsque cela était possible, ces pages n'ont pas
été numérisées. |
| <input checked="" type="checkbox"/> | Tight binding may cause shadows or distortion
along interior margin / La reliure serrée peut
causer de l'ombre ou de la distorsion le long de la
marge intérieure. | | |
| <input checked="" type="checkbox"/> | Additional comments /
Commentaires supplémentaires: | | Continuous pagination. |

If not called for within one month, the Postmaster will please send to the School Inspector.

JOURNAL OF



EDUCATION,

Province of

Ontario.

VOL. XXVI.

TORONTO, MARCH, 1873.

No. 3.

CONTENTS OF THIS NUMBER.

I. SCHOOL LEGISLATION. (2) The Chief Superintendent on Education. (3) Education Returns for the House of Assembly.....	33
II. EDUCATION IN VARIOUS COUNTRIES.—(1) An Act to Compel Children to Attend School in Michigan. (2) Deaf Mute Education. (3) Syllabus of Latin Pronunciation. (4) A Gift to Science. (5) Chat about Work and Study.....	37
III. MATHEMATICAL DEPARTMENT AND CORRESPONDENCE.....	41
IV. MONTHLY REPORT ON METEOROLOGY OF THE PROVINCE OF ONTARIO.....	43
V. BIOGRAPHICAL SKETCHES. (1) John Young, Esq. (2) Captain C. Rubidge, R.N. (3) Archdeacon Brough. (4) Mrs. Ruttan. (5) Mr. Samuel Fields. (6) Mr. Bright. (7) The Right Rev. Charles Pettit McIlvaine, D.D.....	44
VI. PAPERS ON SCIENCE.—(1) The Intellectual enjoyments of Science. (2) Water as Fuel. (3) Different Kinds of Lightning.....	44
VII. MISCELLANEOUS.—(1) The Public School Teacher. (2) God Save the Queen. (3) Names of the United States. (4) Irish University Education.....	45
VIII. IMPROVED SCHOOL ARCHITECTURE.....	47
IX. EDUCATIONAL INTELLIGENCE.....	48
X. DEPARTMENTAL NOTICES.....	48

SCHOOL LEGISLATION.

The new School Bill which was introduced into the Legislature, by the Hon. Attorney-General Mowat during the recent session of the Legislature, received two formal readings by the House, but was withdrawn on the last day of the Session, in deference to the wishes of several of the members.

The first seven sections of the Bill relate to the election every two years of certain members to the Council of Public Instruction and to the periodical appointment of others by the Governor in Council. It was proposed to elect one member by the Public School Inspectors, one by the Head Masters of High Schools, and one by the Head Teachers of the Public Schools, and of the Roman Catholic Separate Schools. Several members of the House of Assembly also wished to give the Wardens of Counties, (as the representatives of the Municipal System of the Province, on which our School System itself is based,) the right to elect one member to the Council.



HIGH SCHOOL, MARSHALL, MICHIGAN.

The eighth section of the Bill as originally introduced was modified, after a conference on the subject had been held with a number of members on both sides of the House. With the exception of the tenth section the whole of the remaining sections of the Bill were submitted by the Chief Superintendent of Education and approved by the Attorney-General. They are as follows :—

AN ACT TO AMEND THE PUBLIC AND HIGH SCHOOL LAWS OF ONTARIO.

(Sections 1 to 7 inclusive relate to the election of Members to the Council of Public Instruction.)

CITY, TOWN SEPARATED AND COUNTY TO BE HIGH SCHOOL DISTRICTS.

8. From and after the passing of this Act, every city, every town separated for municipal purposes from the county in which it is situated, and every county and union of counties shall, for the purposes of the High School Acts and this Act, be high school districts respectively.

[NOTE.—The following clauses (A to G inclusive,) were under consideration for insertion in lieu of Section 8 of the Bill, as introduced into the House of Assembly.]

ALTERNATIVE : COUNTY HIGH SCHOOL BOARD OR SUB-DISTRICTS.

A. The municipal council of every county (or union of counties) at its first, or June meeting, after the passing of this Act, shall by by-law either :—

(a)—declare itself, and be, a high school board for the management of the high school or high schools of the county, (or union of counties) within its jurisdiction ; or, it shall by by-law :—

(b)—assign to each of the high schools within its jurisdiction, as aforesaid, a sub-district, containing within the boundaries of such sub-district not less than seven hundred and fifty families, or equalized assessed property to the value of seven hundred and fifty thousand dollars.

POWERS AND OBLIGATIONS OF COUNTY HIGH SCHOOL BOARDS.

B. In case a county council, as provided in the next preceding section, prefers to declare itself to be a county high school board for such county, or union of counties, then the present high school board or boards, of the high school, or high schools, within the jurisdiction of such council, shall thereupon cease to exist ; and the county high school board shall succeed to all the property, rights, powers, duties and obligations of such high school boards in the towns (not separated), villages and townships within the jurisdiction of the county or union of counties : And such property, rights, powers and obligations shall pass to and become and be vested in the county council : And such council shall have authority to appoint annually or oftener a committee consisting of three or five persons, one or two of whom (as the case may be) may be members of such county council, for the special oversight of every such high school, under such regulations and with such powers as such council may think proper to authorize.

COUNTY HIGH SCHOOL BOARDS TO LEVY RATES.

C. Every county council, on becoming a county high school board, as provided by the ninth section of this Act, shall from time to time, levy and collect rates in each town (not separated) and other parts of the county for the purchasing of a school site, the erection, enlargement, repairs and improvement and furnishing of a school-house and premises, and for the payment of the salaries of the masters and teachers and of all other expenses of every such high school.

PROVIDE FUNDS FOR HIGH SCHOOLS IN SUB-DISTRICTS.

D. In case a county council shall prefer to assign to each high school within its jurisdiction, a sub-district (as provided in the ninth section of this Act), such council, on an estimate laid before it by the board of any high school in the district or any sub-district within its jurisdiction, of the sums required by it for the maintenance and school accommodation and other expenses of its school, shall impose upon

the taxable property of such district or sub-district (as the case may be), a rate sufficient to meet such expenses.

INTERIM PROVISION BY COUNTY COUNCIL FOR HIGH SCHOOLS.

E. The county council shall (as provided in the ninth section of this Act), declare the council to be a county high school board, or until the county, or union of counties (as provided in the said ninth section) be divided into sub-districts, the council shall, out of the general funds of the county, or otherwise, provide such sums as any high school board in the county within its jurisdiction may by estimate, as aforesaid, require for the maintenance, school accommodation, and other expenses of its high school.

UNION HIGH SCHOOL DISTRICT MAY BE FORMED WITH TOWN SEPARATED.

F. The council of any county (or union of counties), and the council of any town (separated for municipal purposes from such county or union of counties), may each pass a By-law providing for the formation, alteration or dissolution of a union high school district, composed of the separated town and of such parts of the county (or union of counties) as the county council shall determine.

And, in like manner, the councils of two or more adjoining counties may form, alter or dissolve the unions of a high school district, composed of parts of such adjoining counties as the councils respectively may determine. And such union high school district or districts shall, for the purposes of the High School Act and this Act, belong to the separated town, or the county in which the high school is situated (as the case may be) : And the council of such county or town separated shall (on the estimate of the trustees of the high school concerned) provide for the maintenance, school accommodation and all other expenses of such high school : Provided that no such dissolution shall take place except at the close of a civil year, or without the consent of a majority of the members of each of the councils concerned respectively, or without the consent of at least two-thirds of the members of any one of the councils concerned, as the case may be.

APPOINTMENT OF HIGH SCHOOL TRUSTEES.

G. High school trustees shall be appointed as follows :—

(1.) In every city and town (separated from the county in which it is situated) the high school trustees shall be appointed by the municipal council thereof ;

(2.) In high school sub-districts, one half of the high school trustees shall be appointed by the county council concerned, and one half by the council of the town or village in which the high school is situated ;

(3.) In union high school districts formed out of adjoining counties, one half of the trustees shall be appointed by each of the county councils which formed the union district.

(4.) In all cases the appointment of such trustees shall be made in the manner and for the periods prescribed by law.

ESTABLISHMENT AND DISCONTINUANCE OF HIGH SCHOOLS.

9. Every county council, at its June session in any year, but not at any other time, shall have authority (with the concurrence of the Lieutenant-Governor in Council, on the report and recommendation of the Chief Superintendent of Education) to decide upon the establishment of any new, and upon the discontinuance, at end of the then civil year, of any existing high school in any part of the county within its jurisdiction.

ADMISSION OF PUPILS TO HIGH SCHOOLS AND COLLEGIATE INSTITUTES.

10. The thirty-eighth section of the School Act of 1871 (34 Vic., chap. 33), shall be amended so as to read as follows :—

38. It shall be the duty of the Council of Public Instruction from time to time to prescribe by regulations (to be approved of by the Governor in Council) the subjects, times and extent of the examinations necessary to qualify pupils for admission into the high school and collegiate institutes, and also to determine the standard to be attained by each pupil for such admission ;

(1) No pupil shall be admitted to, or continued in, any high school or collegiate institute who has not passed such preliminary examination for admission ;

(2) The council shall, from time to time, require the central committee (appointed by the said council for the examination of public school teachers) to prepare, under its direction, questions for the uniform examination, under the said prescribed regulations of pupils for admission to the high schools and collegiate institutes ;

(3) The examination papers so prepared, with the value assigned to each question, and directions from the Chief Superintendent of

Education as to any further examinations, which the council may desire to be made *viva voce*, are to be transmitted by the said Chief Superintendent to the Inspector of Public Schools of the city (in case of a city), and of the county (in the case of a county or town in the territorial limits of the county) which inspector is hereby constituted the local examiner for the admission of pupils to the high school or collegiate institute (as the case may be), with authority to admit provisionally thereto any pupil who shall have duly passed the required examination in the questions, and under the regulations and directions aforesaid;

(4) Such local examiner shall prepare a return (in the form provided for that purpose) with respect to each examination, and forward the same, together with the answers of the pupils, to the Chief Superintendent of Education immediately after the examination, in order that the same may be considered and reported upon to the Chief Superintendent by said committee, who may thereupon, in such report, confirm, disallow, or cancel the admission of any pupil, or may require further tests of proficiency in any subject of the prescribed programme of examination;

(5) The local examiner, for the services aforesaid shall be paid by the council of the county the same remuneration as is provided in respect of public school examiners by the twenty-seventh section of this Act;

(6) In the case of a city or town separated from a county, he shall be paid by the public schools board a sum at the rate of *five dollars* per day while engaged in such examination;

(7) The Council of Public Instruction may direct that pupils admitted to any high school or collegiate institute since July, 1873, shall also be subjected to examination under this section, and their respective admissions be thereupon confirmed or disallowed.

ALTERATION IN SCHOOL SECTION BOUNDARIES.

11. Every alteration made in the boundaries of a rural school section by a township council, under the restrictions imposed in the Public School Acts, shall be by-law, which shall be passed not later than the first day of May in any year; and it shall be the duty of the township clerk to send forthwith a written notice of the alteration to the trustees of every school section affected by the alteration, and to the county inspector.

UNION SCHOOL SECTION BOUNDARIES.

12. No alteration in the boundaries of a union school section or division shall be made under the restrictions imposed by the fortieth section of the Consolidated School Act (22 Vic., ch. 64), except by the Reeves of the townships and the inspectors concerned, or by the Reeves, county inspector, and public school board (as the case may be).

TOWNSHIPS BOARDS—VALUE OF SCHOOL SECTION PROPERTY.

13. Before giving effect to the fourteenth section of the School Act of 1871, (34 Vic. ch. 33), for the formation of township boards of public school trustees, the township council may appoint the county inspector, jointly with two other competent persons, to value the existing school houses, school sites, and other school property in each and every section of the township, and upon their report to adjust the claims of every school section, in regard to the estimated value of its school house, site and other property and such manner as the township council may deem most just and equitable.

REMUNERATION TO SCHOOL SECTION VALUATORS.

14. The inspector and other persons, while necessarily engaged in the valuation of school sites and other school property shall be entitled to receive from the township council an allowance per day of not less an amount than that paid to each member of the county council for attendance at its meetings.

RURAL SCHOOL TRUSTEE LOANS AUTHORIZED.

15. The thirty-fifth section of the Consolidated School Act (22 Vic., ch. 64), shall be amended so as to read as follow:

(35.) Any township council may by by-law grant to the trustees of any school section (on their application), authority to borrow such sums of money as the trustees may deem necessary for the purchase of school sites, the erection or repair of school-houses and their appendages, or for the purchase or erection of a teacher's residence; and in such by-law the township council shall provide for the issue of a debenture or debentures for the amount of the loan, and shall cause to be levied in each year, upon the taxable property of the section, a sufficient sum for the payment of the interest on the sum so borrowed, and a sum sufficient to pay off the principal during any period not exceeding ten years, as may be agreed upon by the trustees and the lender of the money.

ENLARGEMENT OF RURAL SCHOOL SITE.

16. The seventeenth section of the School Act of 1871 (34 Vic., ch. 33), shall not be held to restrict trustees in the enlargement of their existing school site to the required dimensions: Provided that no such enlargement shall, without the consent of the owner of the land required, include any part of his garden, orchard, enclosed pleasure ground, or the grounds attached to his dwelling house.

TWO OR MORE SCHOOLS IN A RURAL SECTION.

17. Wherever from the large size of a school section, or from its physical conformation, or other cause, the children of the section are unable to attend the school established therein, the trustees may, with the concurrence of the inspector, as provided by law, establish and maintain one or more additional schools in the section, and procure or erect the necessary buildings therefor; and each of such schools shall be subject to the same regulations and obligations as public schools generally.

ANNUAL RETURN OF CHILDREN NOT ATTENDING ANY SCHOOL.

18. It shall be the duty of the trustees of public schools to ascertain before the 31st of December in every year, through the assessor, collector, or some other person to be appointed and paid by the trustees, the names and residences of all the children in their school section, division or municipality, as the case may be, between the ages of five and sixteen years inclusive, - distinguishing those children between the ages of seven and twelve years inclusive, who have not attended any school, or who have not been otherwise educated for four months of the year, as required by the third section of the Act of 1871 (34 Vic., ch. 33); and the trustees, before making complaint of the same before any magistrate, as provided by the fourth section of said Act, shall, personally, or by letter or otherwise, notify the parents or guardians of such children of the neglect or violation on their part of the provisions of said third section.

RIGHT OF TEACHERS TO SUPERANNUATION ALLOWANCE.

19. Every teacher who, while engaged in his profession, contributes to the support of the Superannuated Teachers' Fund, as provided by law, shall, on retiring from the profession of teaching, as provided in the Consolidated School Act (22 Vic., ch. 64), and upon furnishing satisfactory proof to the Council of Public Instruction of good moral character, and of his age, and length of service as a public or high school teacher in Ontario, shall be entitled to an allowance or pension, at the rate of six dollars per annum for every year of such service: Every such teacher, on reaching the age of sixty years, shall be entitled to retire from the profession at his discretion: Every teacher under sixty years of age shall, in addition to proof of his age, furnish from time to time satisfactory testimony of being disabled from practising his profession; The retiring allowance shall cease at the close of the year of the death of the recipient, and may be discontinued at any time should the superannuated teacher fail to maintain a good moral character, to be vouched for (when required) to the satisfaction of the Council of Public Instruction; And should any pensioner, with the consent of the council, resume the profession of teaching, the payment of his allowance shall be suspended for the time so engaged, and, in such a case, a pension for the additional time of teacher shall be allowed him, on his compliance with the law and regulations, and his again being placed on the superannuation list by the Council.

SCHOOL TREASURER TO PAY OVER SUPERANNUATED TEACHERS' MONEYS.

20. The municipal or other treasurer of school moneys shall, at the end of each half year, pay over to the order of the inspector the amount of moneys in his hands, which such inspector has deducted, as required by law, from salaries of male teachers for the superannuated teachers fund for such half year.

TEACHERS' ALLOWANCE FOR HOLIDAYS, AND IN CASE OF SICKNESS.

21. Every master and teacher shall be entitled to be paid his salary for the authorized holidays occurring during the period of his engagement with the trustees, and also for the vacations following immediately on the expiration of the school term or term of his agreement with such trustees; and in case of sickness, as certified by a medical man, he shall be entitled to his salary for a period at the rate of at not less than four weeks for the entire year; which period may be increased at the pleasure of the trustees concerned.

TEACHERS' GENERAL AND CLASS SCHOOLS REGISTERS.

22. Every master shall keep, in the prescribed form, general and class registers, in which shall be recorded the admission, promotion,

removal, or otherwise, of the pupils in his school; which registers shall be provided for the school by the trustees thereof.

TEACHERS MUST PROSECUTE CLAIMS FOR SALARIES PROMPTLY.

23. The eighty-third section of the Consolidated School Act (22 Vic., ch. 64) shall only apply to teachers who prosecute their claim for salary within a reasonable time after it is due and payable by school trustees.

OTHER DUTIES NOT TO INTERFERE WITH INSPECTOR'S DUTIES.

24. No county or city inspector shall, during his tenure of office, engage in or hold any other employment, office or calling which would interfere with the full discharge of his duties as inspector.

ADDITIONAL ALLOWANCE TO COUNTY INSPECTORS.

25. Every county school inspector shall be entitled to an allowance from the county council, including travelling expenses, of such an amount as that council may determine, for performing the following additional duties:—

- (1.) Equalizing annually, with the Reeves, as required by law, the assessments in union school sections or divisions.
- (2.) Visiting schools, and giving special certificates to teachers in new and remote townships under the authority of this Act.

SPECIAL INSPECTORS IN NEW DISTRICTS, ETC.

26. The second and following lines of the ninth clause of the one hundred and sixth section of the Consolidated School Act (22 Vic., ch. 64) shall be amended so as to read as follows:—

- (9.) And to appoint one or more duly qualified persons, as he, from time to time, may deem necessary, to visit new and remote townships, in order to advise with and encourage the settlers to establish schools for the children, under their regulations and with the aid provided by law; or to visit and report upon teachers' county institutes, or upon any other school matter.

CERTIFICATES TO TEACHERS IN NEW DISTRICTS.

27. Any public school inspector may, under such general regulations or instructions as may be prescribed according to law, examine, and give special certificates, from time to time, to teachers in new remote townships; which certificates shall be valid in such townships for the periods mentioned in the regulations: Provided always, that, under such general regulations, it shall be competent for any inspector to endorse as valid, within his jurisdiction, any third class certificate issued by any county or city board of examiners.

ADDITIONAL ALLOWANCE TO COUNTY BOARD OF EXAMINERS.

28. The members of the county board of examiners shall be entitled to the same allowance from the county council for time and expenses as members of the county council receive, and to such additional allowance, as may be determined by such council.

ISSUE OF PROVINCIAL AND COUNTY CERTIFICATES.

29. The first proviso of the twelfth section of the School Act of 1871 (34 Vic., ch. 33), shall be altered so as to read as follows:

Provided that second as well as first class provincial certificates shall be awarded by the Council of Public Instruction, and also second as well as third class certificates by county and city boards of examiners.

CERTIFICATES TO STUDENTS OF ANY NORMAL SCHOOL IN BRITISH DOMINIONS.

30. Upon passing the requisite examination, special certificates may be issued (under the conditions prescribed by law) to any person who may have been trained at any Normal School in the British Dominions; which certificates shall specify among other qualifications, the standing of such person at such Normal School, and the extent of his ability and aptitude to teach as may be evidenced by his certificates from such Normal School, or otherwise to the satisfaction of the Chief Superintendent of Education.

GOVERNMENTS OF NEW NORMAL SCHOOLS.

31. Whenever any additional Normal School shall be established, it shall be under the same government and regulations as are provided in the Consolidated School Act, with respect to the present Normal School.

TENANTS TO BE SCHOOL VOTERS.

32. Whenever the words "freeholders or householders," or "freeholders and householders" occur in any of the School Acts, they shall be altered so as to read, "freeholders, householders (and) or tenants," as the case may be.

2. THE CHIEF SUPERINTENDENT OF EDUCATION.

The Rev. Dr. Ryerson having attained the age of threescore years and ten yesterday, the 24th instant, received addresses of congratulation from the offices of the Education Department, and of the Normal and Model Schools. The proceedings were of a private character, and were entirely unexpected by the Chief Superintendent; but as that gentleman has been in the public service since the year 1844, and has been remarkably successful in the management of a most important branch of that service, our readers will be interested in these addresses and the reply.

ADDRESS FROM THE EDUCATION DEPARTMENT.

To the Reverend Egerton Ryerson, D. D., LL.D., Chief Superintendent of Education for Ontario.

REVEREND SIR,—The undersigned, who have had the honour of serving under you in the great work of devising, administering and endeavouring to perfect the details of our provincial system of education—some of us for many years, others for a shorter period—are desirous of availing ourselves of this happy occasion of the seventieth anniversary of your birth, in order to express the feelings of high respect and warm affection with which you are regarded by us.

Your high character and your great public services to the country have made the performance of our labours a matter of pride to ourselves as well as a pleasing duty. The equal temper, the courteous demeanour, and the impartial justice for which your administration of the Department has been conspicuous, have always afforded encouragement to faithful exertion, and inspired confidence that, while there would be little toleration for neglect of duty, there would be full appreciation of good service.

It is our earnest hope and prayer, Reverend Sir, that you may long be spared to direct the affairs of the Department in which so many years of your valuable life have been spent. It has been your privilege to devote a ripened and matured experience, and an extraordinary energy, to the work of fostering and promoting the intellectual wealth and the moral welfare of the youth of your native land. As you approach the evening of life you will enjoy the reflection that, by Divine permission, and with the ready cooperation of the people, you have been enabled to lay a solid foundation for the future development of mental culture and true civilization in a noble Province.

Among the many who will always hold your name in honour, be assured, Reverend Sir, that none will be more devoted than ourselves, and we now beg that you will accept of our hearty wishes for your present and future happiness, and for many glad returns of the day.

ADDRESS FROM NORMAL AND MODEL SCHOOLS.

To the Reverend Egerton Ryerson, D. D., LL.D. Chief Superintendent of Education for the Province of Ontario.

REVEREND AND DEAR SIR,—It is with feelings of unfeigned pleasure that we, the teaching staff of the Normal and Model Schools for Ontario, embrace this opportunity to offer you our congratulations upon your having reached your seventieth birthday. We congratulate you on the fact that, though you have for so many years laboured in the cause of education, and striven to bring the educational system of our Province to its present proud position, still the hand of time has dealt gently with you, and that to-day you stand before us, "with strength unabated," in the full vigour of a green old age, an example of what may be achieved by perseverance in the path of duty. We rejoice to think that your right hand has not yet forgotten "its cunning," but that, if needs be, you still are able, as of old, to wield "the pen of a ready writer."

The number of years during which we have acted under you as Chief Superintendent—most of us graduates of the Normal School—varies with each of us; but we all rejoice to think that so auspicious an occasion has been presented to us for assuring you that, from the oldest to the youngest in our several positions, we entertain the most kindly appreciation of all your efforts to raise the status of our profession generally, and of the many acts of kindness of which we may, from time to time, have been individually the recipients.

Once more, Reverend Sir, we tender you our heartiest congratulations, and beg that you will assure Mrs. Ryerson also that her joy is not unshared by us. That you may be spared for many years to preside over the educational interests of the Province, and to administer counsel to ourselves and our successors, is the hearty desire of us all, for we feel confident that, so long as your hand guides the helm, the welfare of the Normal and Model Schools will never be neglected. But should you see fit to lay aside the cares of office, and enjoy the evening of your days in retirement from the anxieties

of official life, we feel that in no case can the maxim be more truly applied than in yours,

Finis Coronat Opus.

The addresses having been read, Dr. Ryerson made a verbal reply to the following effect:—

MY CHRISTIAN FRIENDS OF THE EDUCATION DEPARTMENT AND OF THE NORMAL AND MODEL SCHOOLS,—I am taken entirely by surprise; for among the last things that I had this day expected were the addresses which you have just read, and I am entirely unprepared to address to you the grateful remarks which I might have made under other circumstances. The arrival to me of three score years and ten—the highest period of existence which God has ordinarily granted to man—has produced in my own mind feelings of deep solemnity, and has awakened thoughts similar to those of commencing a new state of existence. Among the most pleasing recollections of my past life are my official associations with you; in which associations I have never regarded you as *employés* under me, but as sons, and I may say of daughters also, assisting me in a great and good work—and I can truly say that I have always endeavoured in the tone and character of my intercourse with you, to make you all feel as members of one family, in each of whose individual welfare I took parental interest. I have had no favourites; not one of you owes his or her position to any feelings of peculiar partiality on my part, but to your own virtues, qualifications and merits; and it is to me a source of unalloyed satisfaction that I have been enabled so to conduct myself towards you as to ensure your individual confidence, respect and good will. I derive also peculiar satisfaction from the reflection that, while I have required from every one of you a faithful discharge of your duties, I have had occasion in no single instance to administer reproof to any for impropriety or neglect of duty. I cannot expect always to occupy my present position. I do not desire any release from labour, though I sometimes desire a change of labour. But whether I remain at my present post for a longer or shorter period, it will be my aim in the future, as it has been in the past, to do all in my power to promote your individual success, comfort and usefulness. I regret beyond what I am able to express that I have not been able to accomplish for you all to which I believe your services and merits have given you a just claim; but I can assure you it has not been for any want of effort on my part. I know that from this establishment, in its administration, and from its Normal and Model Schools, an influence has gone forth which is felt in the remotest parts of the Province; and I trust that the salutary influence of the past will be found only a faint emblem of that which will be witnessed in the future throughout the length and breadth of the land. I pray that the Divine protection may continue over our work and over us individually; and while I most sincerely thank you for your kind congratulations, I feel no one circumstance more consoling, with the sense of advancing years, than the conscientiousness that after so many years of official relations and united labour, I enjoy your individual respect and good will.

3. EDUCATION RETURNS FOR THE HOUSE OF ASSEMBLY.

The following educational returns were asked for by the House of Assembly during the present session:

Mr. Clarke (Wellington)—A return of the number of children attending the Public and High Schools of Ontario from 30th of June 1871 to 30th of June 1872; and of those attending private schools in so far as the same can be ascertained from the annual school returns; and of the number of children of school age in Ontario as reported in the annual returns of 1871.

Hon. E. B. Wood—That the Chief Superintendent of Education do with all convenient dispatch, lay before the House a return stating concisely:

1. The date of the establishment of the Normal and Model Schools in this Province.

2. The total outlay on *capital account* in respect of the said schools including the purchase of lands and every expenditure strictly chargeable to *capital account*.

3. The annual outlay since the establishing of the said schools including staff of teachers, superintendence, maintenance and every expenditure not charged to *capital account*.

4. The names of the persons in each year with their places of residence who have received instruction at the Normal School with the view of fitting themselves for teaching in this Province, and the average number of them who have made and are still making teaching their profession, and how many of such teachers are now teaching in the Province, and in what counties they are now teaching.

5. The average cost to the country, including interest at six per cent. on the said capital outlay, for the training of each teacher who has made teaching in this Province a permanent occupation.

Mr. S. C. Wood—Return of copies of all correspondence between any member of the Executive Council of this Province, the Council of Public Instruction, the Chief Superintendent of Education or other member of the council, since the passing of the Act 35 Vic., chap. 30 "making temporary provision as to the regulations of the Council of Public Instruction", and since the date of the last return from the Educational Department.

Mr. S. C. Wood—Return for a copy of the regulations of the Council of Public Instruction, and other instructions relating to the admission of pupils to the High Schools or Collegiate Institutes.

2. A copy of the Order in Council suspending or disallowing these regulations, and a copy of any instructions issued by Government to boards of trustees on this subject.

3. The number of pupils admitted to each High School and Collegiate institute since the suspension of these regulations, the name of the schools and institutes, and of the examiner and the subjects on which the candidates were examined, the extent of the examination in these subjects, and the number of marks obtained by these pupils.

4. Copies of any reports to the Education Department, or to the Government in regard to the examinations and admissions from inspectors, trustees or other parties, and copies of any correspondence or reports throwing light upon the operation of the law since the date of the suspension of the regulations on the subject.

Mr. S. McCall—A return stating the number of scholars attending the Normal School for the purpose of qualifying as school teachers for the years 1869, 1870, 1871, 1872 respectively. Also the largest number of pupils the present Normal School is capable of accommodating throughout a session thereof.

Mr. Cook—A return of the number of first, second and third-class certificates granted to school teachers during the year eighteen hundred and seventy-two; also the number of persons who have made application for certificates and have been unable to obtain them during the same year.

Mr. M. S. McDonald—A return for copies for all Orders in Council (if any) and correspondence (if any) in reference to the establishment in Ontario, of any additional Normal Schools.

II. Education in Various Countries.

1. AN ACT TO COMPEL CHILDREN TO ATTEND SCHOOL IN MICHIGAN.

SECTION 1. *The People of the State of Michigan enact*, That every parent or guardian in the State of Michigan having control and charge of children between the ages of eight and fourteen years, shall be required to send such children to a public school for a period of at least twelve weeks in each year, at least six weeks of which shall be consecutive, unless such child or children are excused from such attendance by the board of the school district in which such parents or guardians reside, upon its being shown to their satisfaction that his bodily or mental condition has been such as to prevent his attendance at school or application to study for the period required, or that such child or children are taught in a private school, or at home, in such branches as are usually taught in primary schools, or have already acquired the ordinary branches of learning taught in the public school; *Provided*, In case a public school shall not be taught for three months during the year, within two miles by the nearest travelled road, of the residence of any person within the school district, he shall not be liable for the provisions of this Act.

SEC. 2. It shall be the duty of the director of every school district, and president of every school board within this State, to cause to be posted three notices of this law in the most public places in such district, or published in one newspaper in the township for three weeks, during the month of August in each year, the expense of such publication to be paid out of the funds of said district.

SEC. 3. In case any parent or guardian shall fail to comply with the provisions of this law, said parent or guardian shall be liable to a fine of not less than five dollars or more than ten dollars for the first offence, nor less than ten or more than twenty dollars for the second and every subsequent offence; said fine shall be collected by the director of said district in the name of the district, in an action of debt or on the case, and when collected shall be paid to the assessor of the district in which the defendant resided when the offence was committed, and by him accounted for the same as money raised for school purposes.

SEC. 4. It shall be the duty of the director or president to prosecute any offence occurring under this Act, and any director or president neglecting to prosecute for such fine within ten days after a written notice has been served on him by any tax-payer in said district, unless the person so complained of shall be excused by the district board, shall be liable to a fine of not less than twenty or more than fifty dollars, which fine shall be prosecuted for and in the name of the assessor of said district, and the fine when collected shall be paid to the assessor, to be accounted for as in section three of this Act.

2. DEAF MUTE EDUCATION.

"Providence helps those who help themselves" is a maxim of authority, and one the truth of which we often see exemplified. It is a piece of philosophy, too, which probably furnishes people sometimes with a plausible excuse for refusing aid to those who apparently will not exert themselves in their own behalf. But a maxim of this sort entirely fails in its application when the objects appealing for assistance are persons deprived of some of the faculties which are indispensable to success in the battle of life. The deaf and dumb, and the blind, enter upon the race heavily burthened, and the awakening and development of their intellectual powers bring the melancholy conviction that to them the struggle must ever be an unequal one, and success but comparative. This portion of the community can never fail to awaken the sincerest feelings of compassion, and the best method of assisting them to make the most of their limited powers must claim the most earnest consideration. We are glad, therefore, to see increasing attention given to the class thus thrown upon the kindness of their more amply endowed fellows.

One of the most interesting matters connected with the education of deaf mutes is the greater degree of attention given to articulation, as a medium of education. From the observations of a lady connected with an institution for deaf mutes in the State of Massachusetts, who recently paid a visit to Europe, it appears that the use of signs is giving place in many instances to the practice of articulation. Miss Rogers, the lady referred to, visited twenty-two European establishments for deaf mutes, of which fifteen taught by articulation, or what is commonly called the German system, and seven by signs, or the French system, which is the one that has been generally used in this country. In three or four of the seven schools, articulation is also taught. The schools visited were one each in Holland, Belgium, Switzerland and Italy, six in England and twelve in Austria and Germany. To such an extent has articulation been adopted in Germany that Miss Rogers could hear of no school in Germany using the French system; and but one in Belgium, where formerly it was used in all the schools. In England also articulation is gaining ground. Most of the schools visited were small; none of the German schools that she saw containing more than 130 pupils. Several had only day pupils; as, for example, Mr. Hirsch's celebrated Dutch school at Rotterdam, with 100 day pupils; one at Weissenfels with 52, and one at Osnabruck with 50. We believe that it is contemplated to devote more attention to the same point in the Institution at Belleville, Ontario.

Miss Rogers also made some observations upon the management of schools abroad, which are of interest. At the schools visited all the pupils board in private families, selected by the directors, and there, as in Berlin, where about half the pupils board out in this way, the arrangement has long worked well. At the Rotterdam school, during the last two or three years of the course, the boys are apprenticed to trades in the city and devote the afternoons to their work,—an arrangement of which Miss Rogers thought very favourably. The average age of pupils she thinks is less in Europe than in the United States, and the teaching is much more generally done by men. She found no women teaching in the German deaf mute schools, but several such teachers in Switzerland and England—*Monreal Gazette*.

3. SYLLABUS OF LATIN PRONUNCIATION.

DRAWN UP AT THE REQUEST OF THE HEAD-MASTERS OF SCHOOLS.

The Head-masters of Schools, at their Conference held in 1871, declared the system of Latin pronunciation prevalent in England to be unsatisfactory, and agreed to ask the Latin Professors of Oxford and Cambridge 'to draw up and issue a joint paper to secure uniformity in any change contemplated.' This request they repeated at their meeting of 1872. As we are ourselves agreed in all essential points, and find that there is a considerable body of opinion in the Universities and elsewhere in harmony with our views, we beg to offer the following brief suggestions.

If it were thought advisable to adopt any existing pronunciation, we should be inclined for many reasons to recommend the Italian,

with perhaps a few modifications. But not to speak of other difficulties, the tyranny of accent over quantity is at least as marked in the Italian as in the English reading of Latin; and we hold with the most experienced teachers that to distinguish between long and short syllables is an essential part of a reform in pronunciation. At the same time Italian appears to us to offer many valuable aids which should not be neglected; as English in its tones and vocalisation seems so different from old Latin, that often it is not easy to find in it even single sounds to give as adequate representations of an old Latin sound. The Italian of literature has been fixed for six centuries, and manifestly approximates to the Latin of the 7th or 8th century.

There can be little doubt that during the best ages the writing, as seen in inscriptions, was meant to represent exactly the sounding of words, and that a difference of spelling implied so far a difference of pronouncing.

We propose then that the letters of Latin should be sounded as follows:

Vowels and diphthongs:

ā, as accentuated Italian *a*: i. e. as the middle *a* of *amata*, or as the *a* of *father*:

à, as the unaccentuated Italian *a*: i. e. as the first and last of *amata*. It is not easy to represent this sound in English: we know nothing better than the first *a* in *away*, *apart*, *aha*.

ē, as the Italian closed *e*: *arena*; nearly as *ai* in English *pain*:

æ, as the Italian open *e*: *secolo*: nearly as the first *e* in English *there* or French *père*.

ē, the same sound shortened; nearly as in English *men*. A wide induction, extending from classical lines to the present, would support what is said of *e*, *æ*, as a rule *ē* by closed *e*, *ē* by open *e*.

ī, as accentuated Italian *i*; i. e. as the first *i* of *timidi*, or the *i* of *machine*: *ī* as unaccentuated Italian *i*: i. e. as the two last *ī*'s of *timidi*, or the *i* of *pity*. The way in which Italian *i* is represented in Greek on the one hand, and in Italian on the other, and its history in Latin itself, would tend to show that its actual sound approximated to that of *e*, and was something between the *i* of *pity* and the *e* of *petty*.

ō, as Italian closed *o*; nearly as in German *ohne*, English *more*.

ò, as Italian open *o* shortened; nearly as in German *gold*; less nearly as in English *corn*. The English and English-Latin *o* is very peculiar, in most cases hardly an *o* at all: compare our *honor*, *domos*; and our *non*, *bos*, *pons* on the one hand, with *nos*, *hos*, *domum* on the other.

Perhaps, comparing Italian, we should pronounce *ō*, when it precedes *r*, or when it represents *au*, as the Italian open *o*: *gloria*, *Victoria*, *plastrum*, *Clodius*.

ū, as accentuated Italian *u*: as the first *u* of *tumulo*, the second of *tumulto*, or as *u* in *rule*, *lure*.

ū, as unaccentuated Italian *u*: as the second *u* of *tumulto*, the first of *tumulto*, the *u* of *fruition*.

au, as Italian *au*; nearly as *ow* in English *power*.

In genuine Latin words the other diphthongs are very rare, except in archaisms where *ei*, *oe*, *oi* or *ou* are common enough.

eu, as Italian *eu*, or Latin *ē* quickly followed by Latin *ū*. Of Latin words we find perhaps only *heu*, *ceus*, *seu*; and we do not feel competent to propose a different sound for it in the many Greek words adopted into Latin.

æ is also very rare in Latin words: for them, as well as for Greek words, we should prefer a sound like the German *ö*: as an alternative we propose the open Italian *e* for *æ*, as before for *æ*.

ei too as a diphthong is very rare: we would give it the Latin *ē* sound quickly followed by a Latin *ī* sound.

But in a large class of words containing *ai*, *ei*, *oi*, *ui*, the *i* is a semiconsonant, and should be sounded like English *y*: pronounce *Grains*, *maior*, *Troia*, *eius*, *Pompeius*, *Scivius*, *civius*, as *Grā-yus*, *mā-yor*, *Trō-ya*, *ē-yus*, *Pompē-yus*, *sē-yanus*, *cā-yus*: *eicit*, *reicit*, as *ē-yicit*, *rē-yicit*. The *o* or *e* of *proin*, *prout*, *dein*, *deinde*, when not forming a distinct syllable, does not form a diphthong, but is elided, before an initial vowel: so in *neūtiqum*, *e* is elided.

In a fuller discussion more might be said of the consonants: a few remarks must suffice for the present.

c, always as *k*: in *Cicero*, *facies*, as well as *Cacus*.

g, always as *g* in *get*: in *gero*, *gingiva*, *gyrus* as well as *gandeo*.

s, at the beginning and end of words, and at the beginning of syllables, and before consonants, is always sharp, (as the *s* of *sin*) in Italian and should be so in Latin: *sol*, *stella*, *de-sero*, *ni-si*, *nos*, *sonus*.

z, between two vowels, has in Italian a soft *z* sound, as in our *rose*: we should thus sound in Latin *rosa*, *musa*, *miser*. But words of this kind in Latin are but few: much more numerous are those where *s* might also be written *ss*, a lost consonant having been assimilated and the vowel always lengthened *causa*, *casus*, *visus*, *odiosus*,

divisio, (see Quintilian I, 7, 20). Italian is very suggestive; and in all these cases *s* should be sharp.

t is always a pure dental, in *ratio* as in *ratis*, in *notia* as in *notus*, in *vitium* as in *vita*.

bs, *bt* should be sounded (and generally written) as *ps*, *pt*: *laps*, *aps*, *apsens*, *optulit*, *supter*.

j, or consonant *i*, as *y* in *yard*.

As to consonant *u*, or *v*, we believe that its sound was as near as possible to that of the vowel *u*: i. e. like the *ou* of the French *oui*, not differing therefore much from the English *w*. But as there is great diversity of opinion on this point, we propose to leave it an open question, whether it shall be pronounced in this way, or as the English and Italian *v*.

y, *z*, *ch*, *ph*, *th* were brought into the language to represent Greek sounds: *z*, *ph*, *th* we propose should be sounded as at present: *ch* should never be pronounced as in our *charter*: it would be better to give it a *k* sound succeeded by an *h* sound: but it must follow the fortunes of Greek *χ*, *γ*, or Greek *ν*, had some middle sound between Latin *u* and *i*, perhaps resembling either French *u* or German *ü*; but *y* or *ÿ* came probably much nearer to *ï* and *ÿ* than to *ü* or *ÿ*.

In our Latin pronunciation quantity is systematically neglected; attention to it seems essential in any reformed method: *ā* and *ā* should be distinguished in *matris* and *patris*, as in *mater* and *pater*. The ancients observed the natural length of vowels, when the syllable was also long by position: as in *Marcus*, *pastor*: Cicero tells us that every vowel when followed by *us* or *us* became long by nature: as in *infirmus*, *insanus*: *gn* seems to have had the same power over the preceding vowel. Often too an extruded consonant leaves a naturally short vowel long: *e* from *ex*: *es*, *est* from *edo*: *Sestius* (*Sestios*), but *Sextius* (*Sextios*). On the other hand the long vowel of many final syllables in time became short: and we can scarcely suppose that while the naturally long vowel in *amat*, *docet* was shortened, it always remained long in *amant*, *docent*: it seems certain also, whatever the reason may be, that the *e* was short in *docentis*, etc., as much as in *legentis*, *audientis*.

Following the traditions of the Italians, we fortunately keep the accent in most cases on the right syllable, though the loss of quantity has changed its nature. In a summary like this we cannot dwell on the exceptions.

In respect of elision we may see, by comparing Plautus and Terence with Ovid, how much the elaborate cultivation of the language has tended to a more distinct sounding of final syllables. We must not altogether pass over the elided vowel or the elided syllable which ends in *m*, except perhaps in the case of *ē* in common words, *que*, *neque*, and the like. How far two final *m* was mute, or nasal, it is not easy to determine. *est* 'is' seems often in pronunciation (and in writing) to have lost its *e* and become an enclitic *st* after a vowel or *m*: thus *tuo est*, *merum est* can end an Ovidian pentameter, *labori est* an Hexameter: we must therefore pronounce *tuost*, etc.

EDWIN PALMER,
H. A. J. MUNRO.

—(Educational Times.)

4. A GIFT TO SCIENCE.

Some time since Professor Agassiz in an address before the Legislature of Massachusetts called the attention of that body to the need and value of a summer school for the instruction of both teachers and students in natural history. He also suggested that, during the coming summer, a session should be held on the island of Nantucket. These remarks attracted the attention of Mr. John Anderson, a wealthy and well known tobacco merchant of this city, who with great munificence has donated an entire island for the purposes of the institution, supplementing his gift with a fund of \$50,000. The island, which bears the name of Penikese, is of about one hundred acres in extent and is situated in the Elizabeth group, at the entrance of Buzzard's Bay on the southern coast of Massachusetts. It has been largely improved, and contains several buildings valued at \$100,000, while the fertility of its soil is such as to render it possible to raise sufficient produce to pay all expenses of the school.

Professor Agassiz considers that the site is eminently suited for the purpose as affording ample opportunity for original investigation as well as instruction. The institution will be carried on throughout the year, in connection with the museum of Cambridge, and measures will be speedily taken to prepare the buildings for use.

5. A CHAT ABOUT WORK AND STUDY.

Many of the most notable results of human thought have come from the brains of men whose hands were busy with work.

Benjamin Franklin was obliged, as a journeyman printer, to be a very slow and careful reader of books. In this way he thoroughly

digested what he read; a slow but gradual development of power was the result. He was a working-man and a philosopher.

Robert Stephens and his son Henry were laborious printers and also learned men. The father wrote a thesaurus of the Latin language, and, De Thou says, "did more to immortalize the reign of Francis I. than all the monarch's own most famous exploits." The son wrote a thesaurus of the Greek language, the result of twelve years' hard application and study, which is well known among the learned.

Brindley, the famous engineer, worked as a carter, ploughman and millwright till the age of manhood. His observations in this last trade, aided him in the construction of the Bridgewater Canal, with its tunnels, aqueducts and locks.

Bewick, the successful engraver on wood, and author of the "History of Quadrupeds," studied from early boyhood the habits of animals, and these observations caused his attempts at drawing, in which he afterward became proficient.

Watt's steam-engine, if not the unavoidable, was at least, a natural, result of his thoughts and pursuits.

Ferguson, while he watched his father's sheep, studied astronomy, and early in life had his thoughts busy with mathematical problems.

The life of Rittenhouse was very similar. He drew geometrical diagrams on his plough, and studied them as he turned the furrows.

Sir Humphry Davy was the son of a poor wood-carver, and himself an apprentice to an apothecary. We can hardly suppose that with his excessive vanity he would have added as much to science had he been a gentleman's son.

Columbus, while leading the life of a seaman, became the best astronomer and geographer of his age. It was under the same circumstances that Cook acquired his scientific and literary accomplishments.

Homer was a poor man, and wandered from place to place, observing the customs and countries he afterward described in his two poems, especially in the "Odyssey."

The success of the "Georgics," Vigil's most finished poem, is due to the writer's knowledge of rural life.

Milton was an accomplished man of the world, knew much of men and countries, and displayed an especial fondness for athletic sports.

It is difficult to believe that some of the finest specimens of the dramatic poetry of Ben Johnson were written during the leisure that comes to a labouring mason, and in the intervals of inactivity in a soldier's life.

Burns worked for years as a farmer, and from his intimate communion with nature came the inspiration of many of his sweetest songs.

Scott in all his writings shows the careful observer of men and things, and by his fidelity of description has given an added charm to history.

Dante wrote his "Inferno" after an engagement in civil strife in which he was defeated and proscribed.

Descartes while a soldier laid the foundation of his mathematical discoveries.

Cervantes, as a soldier, was detained five years a captive in Algiers. Giffard's early life was one of privation and hardship.

It was the persevering use of bodily exercise that overcame the natural defects in Demosthenes' voice, and in the bodily organization of Cicero. Plato led a life of vicissitudes, and for many years followed the example of his illustrious master Socrates. Pythagoras in early life became proficient in gymnastic exercises. When eighteen he received the prize for wrestling in the Olympic games. When Greece could afford him no more, he travelled, and in this way added vast and varied information to his already well-stored mind. He advocated and carried out views which it would be well for those interested in introducing this feature to imitate.

Many of the best historians describe the scenes in which they themselves were busy actors. Among many, these names may be mentioned: Herodotus, Xenophon, Polybius, Julius Cæsar, Sir Walter Raleigh, Frederick the Great, De Thou and Clarendon.

It is a matter of great regret that the most reasonable and natural system of education should have been so long neglected.—*To-Day*.

THE RECENT EXAMINATION.

Specimens of Miss Anna Living's answers to questions in English Literature and History.

English Literature.

Q. 1. Give some account of the principal Latin Writers of the Norman times. What were the Romance tongues of France?

The principal Latin poet of the Norman times was Joseph of Exeter. His chief works are two epic poems—one on the Trojan War, noted for the purity of its Latin; the other, on the Third Crusade, exists now only in the manuscript form.

The principal historians were William of Malmesbury, born about the time of the Conquest; Geoffrey, of Monmouth; and Gerald Barry. William of Malmesbury's chief work is a history of England, from the Saxon conquest to the year 1120. There is in this work a more exact balancing of facts, and fewer absurd legends than in the histories written previously to his time. Geoffrey of Monmouth's chief work is a history of the British Kings. The history of Arthur, and his Knights of the Round Table, forms the most interesting part of the work. Gerald Barry also wrote a history of the Britons.

In France, the Romance tongues broke into two dialects, named from the words "oïl" and "oc," used instead of our "yes." The language of oïl was spoken in the north, and the language of oc in the south of France. The Langue D'Oc was sung by the famous Troubadours. It was trampled out by De Montfort in his Albigensian Crusade, and exists now only as the rude *patois* of the province that now bears its name. The Langue D'Oïl was introduced into England by the Norman conquest, and has in many ways influenced our English Literature.

ANNA LIVING.

2. Notes on Sir Walter Raleigh, Goldsmith, and Burns.

Sir Walter Raleigh—educated at Oxford, went at seventeen to France as a volunteer, in the cause of the Huguenots. After five years' active service, he returned to England, and went with his half brother, Sir Humphrey Gilbert, to North America. Returning none the richer after two years, he was sent with an army into Ireland, to fight against the rebel Desmonds. He won the favour of the Lord Lieutenant, who entrusted him with despatches to Queen Elizabeth. He soon became a great favourite with the Queen, was knighted, was made overseer of the wine sellers, and received a grant of several thousand acres of Irish land. Upon the accession of James I. he lost favour, and was arrested upon a charge of having taken part in a conspiracy to place Arabella Stuart upon the throne. After a trial at Winchester, he was thrown into the Tower, where he lay for 13 years. During his imprisonment, he wrote his great work, "The History of the World." Commencing with the creation, it ends with the second Macedonian war. It is distinguished by a fine antique eloquence, and a depth of learning which we are not prepared to find in Raleigh. A tinge of melancholy, owing doubtless to the circumstances under which it was written, pervades the whole work. At length, weary of his confinement, he offered to disclose an unwrought gold that he had discovered in one of his expeditions up the Orinoco, as the price of his freedom. Vessels were furnished him, and he set out; but on arriving at the Town of St. Thomas, he found the Spaniards prepared to oppose his landing. An engagement took place, in which Raleigh was defeated; he was, therefore, obliged to return to England. To appease the Spaniards, whom James was desirous of conciliating, he was beheaded, 1618. His other works are a narrative of his cruise to Guinea, and several poems.

ANNA LIVING.

Goldsmith, the son of a Protestant clergyman, was born in Ireland. By the aid of his uncle Contarine, he was educated at Trinity College, Dublin. He was very idle and unruly, and took only a very low B.A. After leaving college, he endeavoured to set up as a doctor, tutor, clergyman, and lawyer. Failing in his attempts, he set off on a pedestrian tour of Europe, and travelled through France, Italy, Switzerland, &c. On his return to England, he made several unsuccessful attempts to set up as a medical man, before he finally adopted letters as his profession. For several years he wrote for the periodicals and magazines of the day. For Smollett's Magazine he wrote many fine essays, also letters describing a Chinaman's impressions of England. The latter attracted considerable attention. About this time he formed the friendship of Johnson, who aided him in many difficulties. Once, when arrested for debt by his landlady, he sent for Johnson, who hastened to him at once. Goldsmith produced his "Vicar of Wakefield," which Johnson (recognizing it as a work of great merit) took to a bookseller, and sold for sixty guineas. Before its publication, however, Goldsmith had become famous by the appearance of the "Traveller." Though the sale of his works now brought him in plenty of money, his extravagant style of living, and his lavish generosity, kept him constantly in debt. To remove the load, he commenced a number of works, a "History of England," "Histories of Greece and Rome," and a successful comedy, "The Stoops to Conquer." At length, with his hands full of unfinished work, and the knowledge of numerous debts, his last illness seized him, and in 1774 he died. His other chief works are, "The Good Natured Man," "Enquiry into the State of Polite Learning in Europe," and "The Deserted Village."

ANNA LIVING.

Burns was an Ayrshire ploughman. When eleven years of age, he was taken from the village school to aid his father on their little farm. From the time of his leaving school, with the exception of a fortnight's French, and a quarter at land surveying, he received no instruction but what he drew from his scanty library. At length, finding it impossible to make a living off their barren soil, he determined to go to Jamaica. In order to raise funds, and prevent his name from being quite forgotten, he had several hundred copies of his poems printed and scattered through the bookseller's shops. The sale of the book was rapid, and when all expenses were paid, twenty guineas remained for Burns. His passage was taken, when a letter from a literary man in Edinburgh, praising his work highly, induced him to alter his plans, and set out for Edinburgh instead of Jamaica. On his arrival in Edinburgh, he was patronized and caressed by all the literary men of the day. Dinners were made in his honour, subscriptions raised for a second edition of his works, and then the novelty having worn off, he was neglected and forgotten. The rest of his life was sad. Debt pressed upon him heavily. He gave way to intemperance, and sank into an early grave. Burns is chiefly remembered for his songs. His best poems are, "To a Daisy," "To a Mouse," "The Cottar's Saturday Night," a beautiful picture of domestic life, and "Tam O'Shanter."

ANNA LIVING.

4. Brief comments on "The Rape of the Lock," "The Task," and "Clarendon's History of the Great Rebellion."

"The Rape of the Lock," an epic in miniature, presents the finest specimen of the mock-heroic style to be found in English verse. A desire to break down a coolness that had arisen between two lovers, by the cutting off of a tress of the lady's hair by her lover, caused Pope to write this work. The machinery of the poem he borrowed from the Rosicrucian doctrine, that the four elements are inhabited by gnomes, sylphs, &c. Most comically he brings this to act upon the story which reaches its climax, when an unfortunate sylph, in her eagerness to save the imperilled lock, gets between the blades of the scissors, and is snipped in two. After a fierce conflict, the tress flies up to heaven, and takes its place among the stars.

"The Task" consists of six books. It was written by Cowper, for a lady who asked him to write her some blank verse, and gave him the sofa as a subject. In the first book he proceeds from a humorous historical description of the gradual improvement in seats to describe the pleasures of a country walk, and contrasts rural and city life, giving loving praise to the former. The second book, entitled "The Timepiece," begins with a just denunciation of slavery, and shows the blessing and need of peace. The other books, entitled "The Garden," "The Winter Morning," "The Winter Morning Walk," and "The Winter Walk at Noon," all show the innocent recreations and gentle loving nature of the author.

"Clarendon's History of the Rebellion" is not in all things a true history of the civil war, as he was absent from England during the greater part of the struggle. It is very unequally written. In some parts are passages of glowing eloquence, while in others sentences are tangled together in utter defiance of the rules of grammatical construction. Yet, even in these, the sense is never obscure. As a specimen of historical portrait painting, it stands unrivalled.

ANNA LIVING.

HISTORY.

- Q. 6. (a.) Describe the circumstances under which the institution of the class of magistrates, called Tribunes of the Plebs, took place. What was the number of the Tribunes? How long did they hold office? What powers and privileges did they possess?
- (b.) What concession was made to the Plebeians by the Licinian Rogation?
- (c.) Describe the part taken by Tiberias Gracchus in the struggle between the masses of the people and the nobility.
7. Give an account of the career of Philip, Father of Alexander the Great.
8. Give a sketch of the reign of Henry IV. of France.
6. (a.) There were in Rome at this time, two classes, the Patricians and the Plebeians. The latter were driven to madness almost, by the oppression of the Patricians, who were their creditors. At length the Plebeians, rather than take the field against the Volscians, seceded to Mons Sacer, where some talked of founding a rival city. The Patricians, in alarm, granted their demands. Slaves for debt were set free, and, greatest privilege of all, two of the Tribunes were henceforth elected from the Plebeians. The number of Tribunes of the Plebs was two. This was afterwards increased to ten. They held office for one year, during which their persons were sacred, and by the word "veto," I forbid it, they could annul any decree of the Senate.
- (b.) One of the two consuls was appointed from the Plebeians after the passing of the Licinian Rogations.

(c.) Tiberius Gracchus proposed an agrarian law, which proposed limiting the quantity of land held by individuals, and dividing the surplus land among the poor. When Octavius pronounced the veto, Tiberius secured a vote of the Tribes, expelling him from the Tribuneship.

(7.) Philip spent the early part of his life in Thebes, where he was detained as a hostage. While there, he studied Greek literature and politics, and when he returned to Macedonia in 359 B.C., as its king, he organized a large army, which soon became a weapon of victory. His first steps were the seizure of Amphipolis, and the establishment of a military station at Philippi. Seizing his opportunity while the Athenians were engaged in a Social War, he interfered in the sacred war that arose between Thebes and Phocis. A victory over the Phocians left him master of Thessaly. He then overran Phocis, and gained a seat in the Amphictyonic Council. By laying siege to Perinthus and Byzantium, he first came into conflict with the Athenians. He was forced to raise the sieges of those cities, but a great defeat of the Athenians at Elatea brought about an alliance between Athens and Thebes. The allied forces suffered a terrible defeat at Cheronea, and Athens gladly accepted the humiliating terms of peace offered by Philip. Just two years after, in the noon of his glory, he was slain by an assassin during the procession of a marriage feast, 336 B.C.

8. Henry IV., first of the Bourbons, ascended the throne in 1589. Before he could consider his crown secure, he had to destroy the Holy League. This he did effectually, by the victories of Arques and Ivry (1590). In order to gain over the Romanists, he recanted his Protestantism. In 1598, however, he published the Edict of Nantes, granting to the Huguenots liberty of religion, and right to hold office. Sully was his chief adviser during most of the reign. The latter part of his reign was devoted to reforms in taxation and general government. In 1610 he was murdered by an assassin, who stabbed him through the window of his carriage, as he was setting off to head an army on the Rhine.

ANNA LIVING.

III. Mathematical Dept. & Correspondence.

To the Editor of the Journal of Education.

SIMCOE, January 2nd, 1873.

SIR,—Observing in the November issue of your *Journal* three solutions of a problem, which, it would seem, Mr. Cameron got inserted in the *Journal* for April, 1872. By some mistake either of the Department, or the Post-office of this place, I never got April's issue of the *Journal*, consequently, I cannot enter into the merits of the problem, beyond the ex-parte view given of it by Mr. Ryerson and the Mathematical Editor of the *Journal*. I will, however, say, from my knowledge of Mr. Cameron, being a fellow-contributor of mine to the Mathematical Department of a London periodical, that he invariably solved his problems upon correct mathematical principles. How he obtained the 21½ per cent. I cannot divine, but with the 10½ per cent., as given "by a majority of the commercial men of a western town," I agree, as being in accordance with the rule called "Equation of Payments," that is, viewing the problem as one belonging to simple interest, to which no well-trained mathematician would for a moment assent that it belonged.

$$\text{Equated time} = \frac{160(1+2+3+4+5)}{1600} = 5\frac{1}{2} \text{ years.}$$

$$r = \frac{600}{1000 \times 5\frac{1}{2}} = .10\frac{10}{11}$$

But "Equation of Payments" is founded upon "the supposition that what is gained by keeping certain payments after they become due, is equal to what is lost by paying other payments before they become due. This, however, is not exactly true: for the gain is the interest, while the loss is equal to the discount." In other words, when we solve problems according to this rule, which is by no means a correct one, we take into consideration interest as counteracting "discount," will the mathematical editor then be kind enough to indicate where he has obtained the "text book principle," which informs him that he is to subtract interest afterwards, when by the employment of this rule he supposes it to be expunged by the discount. Besides, from the very nature of the problem, which is drawn from business transactions taking place every day in the office of "The Building Association," the equated time for the ten annual payments of 160 dollars each, and to discharge a debt not of a thousand dollars but of sixteen hundred dollars, is five and a half years.

The mortgage given as collateral security for the debt, states that for one thousand dollars of current funds, well and duly paid, the mortgagor agrees to pay one thousand six hundred and forty-dollars in ten equal annual payments of one hundred and sixty-four dol-

lars and fifty cents. This is done in order to avoid the idea of compound interest, which is inimical to the principles of common law though not of equity, as Mr. J. Ryerson justly states. But no power on earth can prevent this problem, and that of its converse mentioned by Professor McLellan in the January issue of the *Journal*, from coming under the principles of compound interest; inasmuch as the yearly payment is made with two objects in view, namely, to discharge one year's interest of the principal, and cancel a portion of the debt. Upon this view of the case has Mr. J. Ryerson proceeded, and has ascertained the correct rate per cent. But this is at compound interest, which it is the object of this communication to prove.

Without further preface then, I shall repeat the problem given by Professor McLellan and that of its converse given by Mr. Cameron, and shall employ the same principles to resolve them both.

1st.

A man bought a farm for \$5000, and agreed to pay principal and interest (6 per cent.) in four equal annual payments. Find the annual payment.

2nd.

A. lends B. \$1000, payable in ten annual instalments of \$160 each. What rate per cent. does B. pay for his money?

Solution.

Let *a* be the principal, *b* the annual payment, and *r* the rate per unit.

$$a(1+r) - b = \text{the principal after the 1st payment.}$$

$$a(1+r)^2 - b(1+r) - b = \text{the principal after the second payment.}$$

$$a(1+r)^3 - b(1+r)^2 - b(1+r) - b = \text{principal after the third payment.}$$

Generally

$$a(1+r)^n - b(1+r)^{n-1} - b(1+r)^{n-2} - b(1+r)^{n-3} \dots \dots \dots - b = 0$$

$$= a(1+r)^n - b \left\{ (1+r) + (1+r)^2 + (1+r)^3 + \dots \dots \dots + 1 \right\} = 0.$$

Showing that the amount of the principal for the given time, at compound interest, is equal to the sum of the amounts of each payment for periods of one year, two years, three years, . . . less than the given time, plus the payment, proving that these problems belong to compound and not to simple interest. In fact, Professor McLellan positively states that the first belongs to compound interest. The second must also belong to compound interest, as it is only the converse of the first. In the 1st problem *b* is required and $(1+r)$ given, in the second *b* is given and $(1+r)$ required.

$$b \left\{ (1+r)^{n-1} + (1+r)^{n-2} + (1+r)^{n-3} + \dots \dots \dots + 1 \right\} = \frac{b(1+r)^n - 1}{r}$$

$$\text{Hence } a(1+r)^n = \frac{b(1+r)^n - 1}{r}$$

$$\therefore b = \frac{ar(1+r)^n}{(1+r)^n - 1} = \frac{5000 \times .06 \times (1+.06)^4}{(1+.06)^4 - 1} = \$1442.944.$$

$$\frac{(1+r)^n - 1}{r} = \frac{(1.06)^4 - 1}{.06}$$

In the second problem we have, according to the same principle,

$$1000(1+r)^0 - 160 \left\{ (1+r)^1 + (1+r)^2 + \dots \dots \dots + 1 \right\} = 0,$$

$$\text{or } (1+r)^1 - \frac{160}{1000} \left\{ (1+r)^0 + (1+r)^1 + (1+r)^2 + (1+r)^3 + (1+r)^4 + (1+r)^5 + (1+r)^6 + (1+r)^7 + (1+r)^8 + (1+r)^9 + 1 \right\} = 0.$$

A beautiful geometrical progression of eleven terms, commencing at unity, in which the last term is the four twenty-fifths of the sum of the other ten. By summing these ten, we have $(1+r)^{10} - \frac{1}{r}$

$$\left\{ \frac{(1+r)^{10} - 1}{r} \right\} = 0, \text{ from which we find } r = \frac{1}{25}(1+r)^{10} - 1 \text{ and by adding}$$

unity to both sides, we have $(1+r) = 1 + \frac{1}{25}(1+r)^{10} - 1$ and by

clearing and transposition $(1+r)^{11} - 1.16(1+r)^{10} = -16$, and by employing Newton's rule of trial and error we obtain $1+r = 1.09606998$, the same answer which the Mathematical Editor of the *Journal* and Mr. Jesse Ryerson discovered. By adopting the same process we find that the Building Society charges the usurious sum of 10½ per cent. for their money. The general formula for such problems is, $(1+r)^n + \frac{1}{a} + b \cdot (1+r)^n = \frac{b}{a}$, assuming, as we have already done,

a, the capital, *b* the yearly payment, *r* the rate per unit, and *n*, the No. of years.

I am, Sir, your obt. servt.

D. C. SULLIVAN.

BRIEF PAPERS.—No. ONE.—ON INTEREST.

Text.—“INTEREST is the sum of money paid for use or loan of some other sum of money.”

“INTEREST is divided into SIMPLE AND COMPOUND. When the interest is reckoned only on the principal or sum lent it is SIMPLE INTEREST.”—*Canadian Elementary Arithmetic*, p. 127.

Commentary.—The above statement is fallacious. There is but one kind of interest; there are not different species of allowances made for the use of money or that which can be valued in money. There are divers rules for computing the numerical value of the allowance. Of these, some give an imperfect result, but being of a simpler form, admit of convenient handling and speedy reference. Hence, they are frequently preferred in business (“time is money”) to more complex though strictly accurate formulæ. This is more especially the case with such forms as approach so near to the truth as to exclude material error in their results.

The definition of simple interest above quoted further contains an implication that interest is something computed on money that is NOT lent. That cannot be, for interest is a function of the principal, rate, and time, that is $I = f(p, r, t)$ and the definition of principal declares it to be money LENT. You may say (what many do) that compound interest is “interest upon interest,” and thus try to mend one mistake by making another. It is impossible to logically construct any algorithm whereby interest shall be shown to be the function of interest or of any money not borrowed.

We are then forced to the conclusion that the terms *simple* and *compound*, as applied to interest, are MISNOMERS, and should consequently be expunged. Theoretical error leads to practical error, and the fallacies here refuted, though small, have in times past led to serious results, sometimes of most lamentable character.

The rules for computing interest may be divided into simple and complex. The term complex has a far different signification from compound. The complex rule is perfectly accurate, the simple rules are (all of them) approximations only, and, therefore, more or less inaccurate.

H. T. SCUDAMORE.

Sutherland's Corners, 17th Oct., 1872.

GENERAL RULE FOR EVOLUTION.

Divide the given number into two parts, such that the first part shall have an exact root. Unity would always suffice for the first part, since all its powers and roots are exact. But, for the sake of brevity, it is desirable that the first part be greater than the second, and the greater the excess the shorter will be the following process.

Then construct four columns of numbers in the following manner.

In the first column place the reciprocals of the series of natural numbers, commencing with unity, namely, $1, \frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \frac{1}{6}, \text{ \&c. \&c.}$

In the 2nd column place, as a first term, the index of the required root, (considered as a fractional power), and form the succeeding terms by successive additions of unity.

The terms in the 3rd column are all equal to one another, and are found by dividing the second part by the given number.

The first term of the 4th column is the root of the first part, and each succeeding term in this column is the continued product of the four terms of the next preceding horizontal line.

The sum of the fourth column is the required root.

EXAMPLES.

$\sqrt[5]{5} = \left\{ (13) + 48024 \right\}^{\frac{1}{5}}$				$\sqrt[3]{9} = 729 + 171 \left\}^{\frac{1}{3}}$			
Col. 1.	Col. 2.	Col. 3.	Col. 4.	Col. 1.	Col. 2.	Col. 3.	Col. 4.
1	$\frac{1}{5}$	086048	1 300 000 00	1	$\frac{1}{3}$	19	900 000 00
2	$\frac{1}{4}$	086048	22 372 48	$\frac{1}{2}$	1 $\frac{1}{2}$	19	57 000 00
3	$\frac{1}{3}$	086048	1 155 06	$\frac{2}{3}$	2 $\frac{1}{3}$	19	7 220 00
4	$\frac{1}{2}$	086048	72 89	$\frac{3}{4}$	3 $\frac{1}{4}$	19	1 059 95
$\frac{1}{6}$	$\frac{3}{5}$	086048	5 81	$\frac{4}{5}$	4 $\frac{1}{5}$	19	167 83
$\frac{1}{4}$	$\frac{4}{5}$	086048	42	$\frac{5}{6}$	5 $\frac{1}{6}$	19	27 64
$\frac{1}{3}$	$\frac{5}{6}$	086048	66	$\frac{1}{6}$	1 $\frac{1}{6}$	19	4 67
Total Col. 4. the root 1.323 606 66				Total Col. 4. the root 96568049			

The product of the 1st line $1 \times \frac{1}{5}$ \times 086048 \times 1.3 forming 2nd term Col. 4, viz., 022 372 48 and $\frac{1}{2} \times 1 \frac{1}{2}$ \times 086048 \times 022 372 48 = .001 155 06, et cetera.

H. T. S.

Sutherland's Corners, 17th Oct., 1872.

Notwithstanding Mr. Scudamore's criticisms on the definitions of interest, as given in the text-books, we fail to discern any suggestion sufficient to either improve our knowledge of interest, or enable us to teach it with better success. Let any practical teacher try to make Mr. Scudamore's definition of interest more intelligible or useful than those given in the text-books. He says: “Interest is a function of the principal, rate, and time.” This, at least, has no claim to simplicity, the great charm in the art of teaching. Mr. S. declares the terms *simple* and *compound* to be misnomers, which should be expunged; but he has not given us words more suitable as substitutes. He says, “Theoretical error leads to practical error” This is exemplified in the late solutions headed “Interesting Interest,” by Mr. Cameron, whose fallacy has defied the logic and mathematical theory of Mr. Scudamore.

CHANGING TEACHERS.

To The Editor of the Journal of Education :

SIR,—This has remarkable in these parts for changing teachers. Situated in West Garafraxa, I cannot name one school having last year's teacher; nor are the villages an exception—Fergus, Mount Forest, Arthur, Alma and Douglas have all changed. I have had a letter lately from my Cousin, teacher, in the town of Killyleagh, County Down, Ireland. This man has managed to keep this school, or rather it has kept him, since, and before 1843, when I left him there. Since that year, I have been teaching in Canada, and I think the schools would outnumber, not only the years, but their halves. Were this a particular instance, the difference might be laid to the difference in the men. I wanted to write on the same theme as the Reverend William Cochrane, of Brantford, but, I refer your readers to the Journal for December, where they will find his article better than anything I could produce, and in my opinion, better than any other on the same subject.

The people have three reasons for changing teachers:—the first is, “that payment confers the right to employ, and the right to dismiss.” The popularity of this statement is owing to the palpable fairness on its surface; but it is fallacious, for, between the arbitrary right to dispose of money, and the judgment that should be employed in the disposal, there is no connexion at all.

2nd. “That the loss of this right would make teachers mere careless sinecures. Now suppose this right to employ and dismiss to be taken from the hands of trustees and placed in the hands of three well educated School Commissioners, one appointed by the Government, one by the people, and one by the teachers, would not the few competent trustees be relieved of an office both profitless and praiseless?”

If one function of these Commissioners were to nullify or certify the objections in a written petition signed by a majority of the rate-payers in a section wanting to remove its teacher, would this slow way of disposing of him make him more careless or more diligent? If he found himself secure against public caprice, and knew that he could not be removed but by a “fair trial” by competent judges, and if he were sure that nothing but established inefficiency or immorality could bias them against him, still he would endeavour to be popular; for, living a lifetime among a people wanting him away, is itself a consideration; and, let us remember, that one such removal do. Our present trustees form a petty “Star-Chamber” tribunal, exercising the same fatal certainty over position, that their prototype did over life, and against whose summary decisions remonstrance is futile. Many a clever man quits teaching altogether rather than succumb to the fiat of a crooked, boorish trustee. The 3rd, last, and worst argument of all is, “That popularity is the best test of worthiness or worthlessness.”

Public opinion is a public idol and has more devotees than any Eastern pantheon ever had. By public opinion, I understand public average intelligence—it must be the average, for public or general opinion is essentially not particular opinion. But what would be the probable opinion of a thousand men whom accident might convene? Would not the single opinion of one doctor, or one lawyer or one statesman be better in matters relating to his business, than the opinion of the thousand men outside the business? There is a positive absurdity in voting or passing judgment publicly on what one does not understand. The universality of the custom is apology, yet the apology is still worse than the custom—it is a futile attempt to establish this erroneous popular dogma.—What public opinion lacks in quality it can make up in quantity!

JOHN IRELAND,

Teacher.

IV. Monthly Report on Meteorology of the Province of Ontario.

I. ABSTRACT OF MONTHLY METEOROLOGICAL RESULTS, compiled from the Returns of the daily observations at ten High School Stations, for JANUARY, 1872.

OBSERVERS:—Pembroke—R. G. Scott, Esq., M.A.; Cornwall—James Smith, Esq., A.M.; Barrie—H. B. Spotton, Esq., M.A.; Peterborough—J. B. Dixon, Esq., M.A.; Belleville—A. Burdon, Esq.; Cobden—Hugh J. Strang, Esq., B.A.; Stratford—C. J. Macgregor, Esq., M.A.; Hamilton—J. M. Buchan, Esq., M.A.; Simcoe—Dion C. Sullivan, Esq., LL.B.; Windsor—J. Johnston, Esq., B.A.

Table with columns: STATION, ELEVATION, BAROMETER AT TEMPERATURE OF 32° FAHRENHEIT, TEMPERATURE OF THE AIR, TENSION OF VAPOUR, and MONTHLY MEANS. Rows include Pembroke, Cornwall, Barrie, Peterborough, Belleville, Cobden, Stratford, Hamilton, Simcoe, and Windsor.

Table with columns: STATION, HUMIDITY OF AIR, WINDS, NUMBER OF OBSERVATIONS, ESTIMATED VELOCITY OF WIND, AMOUNT OF CLOUDINESS, RAIN, SNOW, and AURORAS. Rows include Pembroke, Cornwall, Peterborough, Belleville, Cobden, Stratford, Hamilton, Simcoe, and Windsor.

REMARKS. e 10 denotes that the sky is covered with clouds; 0 denotes that the sky is quite clear of clouds. g Where the clouds have contrary motions, the higher current is entered here. b Velocity is estimated, 0 denoting calm or light air; 10 denoting very heavy hurricane. PETERBOROUGH.—Fan-shaped aurora on 7th, red at 7 p.m., blue at 9 p.m. Large lunar circle on 9th. Red sky in N. at 5 p.m., 25th, and bright aurora at 9 p.m. Wind storms, 3rd, 8th, 15th, 23rd, 25th, 13th, 14th, 16th. Snow, 2nd, 3rd, 6th, 8th, 11th, 14th, 17th, 18th, 20th, 21st, 23rd, 24th, 26th, 28th, 30th, 31st. Rain, 2nd, 13th, 16th, 24th, 27th. BELLEVILLE.—Snow, 5th, 6th, 8th, 9th, 18th, 20th, 24th, 26th, 28th.

29th. Rain, 2nd, 3rd, 13th, 15th, 16th. Difference of monthly mean temperature from average of 12 years—4° 41.

HAMILTON.—Snow birds, 7th. Windstorms, 4th, 8th—11th, 15th, 20th. Fogs, 13th, 21st. Snow, 3rd—6th, 8th—10th, 12th, 14th, 15th, 18th, 20th, 21st, 23rd—28th, 31st. Rain, 2nd, 3rd, 13th, 16th.

SIMCOOK.—Wind storm, 23rd. Snow, 3rd—15th, 9th, 18th, 20th, 24th. Rain, 2nd, 13th, 14th, 16th, 17th.

WINDSOR.—Hail, 8th, 16th. Lunar halo, 6th, 7th, 8th, 9th. Wind storms, 8th, 9th, 23rd. Snow, 3rd, 5th, 11th, 14th, 16th, 20th, 21st, 23rd, 24th, 28th. Rain, 2nd, 13th, 15th, 16th.

V. Biographical Sketches.

1. JOHN YOUNG, ESQ.

For over forty years Mr. Young was a resident of this city. For many years he was Director of the Great Western Railway, and one of the original promoters of the Canada Life Assurance Company in 1847, and had been President of it for several years at the time of his death. He took a prominent part in the formation of the Hamilton Gas Company, and was elected its President at every annual meeting held since. In the resuscitation of the Hamilton and Lake Erie Railway he took an active part, and was one of the Directors of that Company. Mr. Young was born in Galston, Ayrshire, in the year 1808, and was the youngest son of Mr. James Young, of that place. He served an apprenticeship to the hardware business in Kilmarnock, and came to Montreal in 1828, where he was, for some time, in the employ of W. Richie & Co., general merchants of that city. In the spring of 1832 he came to Hamilton, and started business as a general merchant, meeting with that success which ever attended his business ventures. In 1840 he became a partner in the firm of Buchanan, Harris & Co., and subsequently became the head of the firm of Young, Law & Co. Seven years ago he became connected with the Dundas Cotton Mills, which, under his enterprising administration, have recently been greatly enlarged. During the rebellion Mr. Young did good services in command of a company of loyal volunteers.—*Hamilton Spectator*.

2. CAPTAIN C. RUBIDGE, R.N.

Capt. Rubidge was born in England on the 30th of April, 1787. In 1806, when only eleven years of age, he entered the Royal Navy as a volunteer of the third class, on board the *Arrow* sloop of war, commanded by his uncle, the well-known Captain N. Portlock. In 1819, Lieut. Rubidge, with his wife and three children, emigrated to Canada. They landed at Quebec in June, and reached Cobourg in the following month, the journey having occupied a space of over three weeks. In 1820, they removed from Cobourg to the Township of Otonabee in this County—Lieut. Rubidge being the second actual settler, Mr. G. Kent having been the first, in that township. He was at once placed in the Commission of the Peace, and, at the time of his decease, was the oldest magistrate in the whole of what formerly comprised the Newcastle District, including the Counties of Northumberland, Durham, Peterborough and Victoria. In 1825-'6 he assisted the Hon. P. Robinson in settling immigrants from Ireland. He cut out and cleared a road from Rice Lake to Peterborough, through the woods, to facilitate the transport of people and stores from Cobourg—a work with which Sir P. Maitland was so pleased that His Excellency gave him a town—and a part-lot. In 1831 he was appointed, by Lord Seaton, Immigration Agent at Peterborough, and during that year he settled 4,000 immigrants from England, Scotland and Ireland. In 1841 he was appointed Registrar of the County of Peterborough, an office the duties of which, it will be universally conceded, he fulfilled with credit to himself and advantage to the public for more than 30 years. In 1841, he was promoted to the rank of Commander in the Royal Navy. He was also, up to the time of his death, the recipient of a good-service pension from Greenwich Hospital.—*Peterborough Review*.

3. ARCHDEACON BROUGH.

The Ven. C. C. Brough, Rector of St. John's, London Township, and Archdeacon of Huron, was born in the County of Carlow, Ireland, in the year 1794. In 1832 he emigrated to Canada, and settled in Orillia, where, for six years, he followed agricultural pursuits, enduring the privations and hardships inseparable from the life of early settlers. In his new home at Orillia he had Church service regularly in his own house, where his neighbours came on Sundays to join in the worship of their own beloved Church. He was then induced by the Bishop of Toronto to visit the Manitoulin Islands, where for three years he laboured as missionary. There in his backwoods ministry he made the acquaintance of the Rev. Benjamin Cronyn of this city. Then began that warm friendship that

even when one has departed to his everlasting home, still knows no decay. He was appointed by the late Bishop Strachan, of Toronto, to the mission parish of London Township, for some time held by the Rev. Benj. Cronyn, afterwards the first Bishop of Huron.—*Church Herald*.

4. MRS. RUTTAN.

Mrs. Ruttan was the eldest daughter of the late Elias Jones, who for many years held the Office of Clerk of the Crown, Clerk of the County Court and Issuer of Licenses for the old Newcastle District, which comprised the counties of Northumberland, Durham, Victoria and Peterboro'. At the age of 18 she married the late Hon. H. Ruttan, who for thirty years was Sheriff of the above District. For the long period of forty years Mrs. Ruttan was the Superintendent of the Sunday School which she founded at the west end, and the temperance pledge which she introduced as part of her system, has borne excellent fruits in rendering her pupils sober, industrious, and worthy members of society.—*Church Herald*.

5. MR. SAMUEL FIELDS.

Deceased was one of the oldest of the old families that made the County of Kent their home more than half a century ago, having been born—near where he died—in July, 1819, which would make him 53 years of age last July. He was universally respected by all who knew him, his virtues being many, his faults very few indeed. He was a public spirited man, and took part in all local matters with a degree of earnestness truly commendable; and in all benevolent and charitable objects he was amongst the foremost in his neighbourhood. As a township officer he was prompt and faithful in all the trusts reposed in him. Strictly consistent in his moral life, he was equally consistent in his political views, and ever proved himself loyal and true to his country and to his Queen. In 1837, when the rebellion broke out in Upper Canada, and when Loyalists were called upon to put that rebellion down, Samuel Fields was one of the first in the then Western District to shoulder his gun, and, in company with others—Kent volunteers—in the dead of winter and proceeded, but scantily provided for a fifty mile march, to the Town of Sandwich.—*Chatham Planet*.

6. MR. BRIGHT.

The veterans of 1812 are gradually passing away. Yesterday we announced the death of Mr. Bright, at the ripe old age of ninety-nine years and three months. The deceased gentleman came to Little York in 1798, with his father, and took part in the defence of the country under General Brock in 1812. He accompanied that general when Detroit surrendered to a handful of British soldiers and Canadian militia, and he was also beside Brock when he fell on Queenston Heights.

7. THE RIGHT REV. CHARLES PETTIT McILVAINE, D.D.

The deceased was born in Burlington, N. J., on the 18th of January, 1798, and had, consequently, passed the seventy fifth year of his age. He received an excellent preliminary education, and graduated at Princeton College with honour in the year 1816. He studied in the divinity class, and was admitted to deacon's orders on the 4th of July, in the year 1820. He was appointed in 1825 Professor of History and Ethics at West Point Academy. This position he resigned in the year 1825, on being called to the pastorate of St. Ann's Church, Brooklyn. In the year 1832 he was solemnly consecrated Bishop of Ohio. He entered on his pastoral duties with great zeal, and his constant, continuous efforts in the fold were blessed with abundant fruits. As Bishop of Ohio he exercised a large amount of influence over the American branch of the Anglican Church. He laboured personally and with unceasing assiduity among the flock which was first given to his care in Ohio from the moment of accepting the charge until his recent departure for sojourn in Europe for the benefit of his health. In the year 1853, Bishop McIlvaine received the degree of Doctor of Canon Law from the University of Oxford, and in 1858, that of LL.D., from the University of Cambridge. His work, "Oxford Divinity compared with that of the Romish and Anglican Churches," is well known. His lectures on "The Evidences of Christianity," have passed through thirty editions.

VI. Papers on Science.

1. THE INTELLECTUAL ENJOYMENTS OF SCIENCE.

Those who, for several years past, have been advocating the more generous introduction of scientific training into our schools and colleges, at the expense, if necessary, of giving less attention to phi-

logical studies, have, as a main argument, insisted on the greater utility of the knowledge of scientific truths as compared with the knowledge of the ancient Greek and Roman authors, so liberally imparted to our college-going youth. They have pointed out the glorious results with which science has enriched human society in the nineteenth century, and the comparative sterility of the so-called classical studies; they have pointed out the success in practical life of those men who have received a scientific education, while those whose whole training was merely philological have, in many cases, been starving for want of capacity to earn an honest living by useful practical labour, either mental or mechanical. In short, they have confined themselves to the task of praising science from a mere utilitarian point of view, forgetting that it may have higher claims, not only equal to those on which the friends of the old and time honoured custom of studying the classics base their defence, but even surpassing which may be asserted in favour of the effect of studies of the dead languages and literature on the development of the human mind.

The higher classes of society, especially in England, consider labour, if not directly degrading, at least below their special domain. They are apt to regard that kind of knowledge which is merely useful and such as men in practical business are in need of as without interest; and in place of attempting to acquire, for instance, so much knowledge of light and electricity as to be able to understand some optical apparatus or the electric telegraph, they prefer to concentrate their attention upon the writings of Virgil or the poems of Homer. A knowledge of Latin and Greek is supposed to be about the highest enjoyment reserved for a man of high culture, for the reason that these studies are pursued, not for a secondary, base, utilitarian purpose, but out of pure love for what is beautiful and true.

Those lovers of science who feel and know that in the study of God's handiwork, Nature, there is much more enjoyment, beauty and truth than in the study of literature, which is a mere human production, have therefore recently been raising their voices so as to persuade the most cultivated classes, if possible, that the pursuit of scientific studies is at least as much worth their notice as the pursuit of philology; that they should not abhor a chemical laboratory, or philosophical cabinet, as dull and dry; that there are fascinations hidden in these sacred precincts of science, which have only to be tested, with the purpose of impartial investigation, in order to be appreciated. This order of defenders of science have found a powerful advocate in Professor Tyndall, who, in his recent lectures, so often insisted that the classes of people for whom he spoke "should take science to their bosoms, not as the servant of Mammon, but as the supporter and enlightener of the mind of man." And the effect of his often repeated appeals has been something marvelous; people of high standing in society, and of corresponding cultivation of mind, who have been accustomed to occupy themselves in their spare hours with reading poetry and works of fiction or, at the very best, the so called classics, have furnished their libraries with works on science, and are studying optics, the polarization of light, etc.; and some have even gone so far as to buy, in place of useless ornaments, prisms, microscopes, and polariscopes, and are delighting themselves and their friends with the revelations made by those instruments, which seem to give us additional organs of sense.—*Scientific American*.

2. WATER AS FUEL.

"On Monday and Tuesday afternoon," says the *San Francisco Alta*, "a large number of citizens, by invitation, visited the brass foundry on Fremont street, for the purpose of witnessing some experiments with a new fuel recently invented. They were shown into that portion of the establishment occupied by the furnaces, and in one corner found a brick furnace, some eight feet long and six feet high. On the top of this was an iron tank holding about ten gallons, which was filled with crude petroleum. From this tank a pipe about an inch and a half in diameter led into the side of the furnace. A small jet of oil, not larger than a small goose-quill, was permitted to flow out of this tube; a light is placed beneath this jet, and it immediately ignites. Another pipe, about an inch in diameter, leads from a steam boiler stationed some fifteen feet away. This pipe leads a small jet of steam upon the burning oil, and the moment the steam strikes the oil the oxygen in the water is set free and ignites with a tremendous roar, generating in a very few moments a most intense white heat."—*Scientific American*.

3. DIFFERENT KINDS OF LIGHTNING.

Lightning is usually classified into *sheet*, *forked* and *ball* lightning. *Sheet* lightning is merely the reflection of forked lightning, or the electric discharge which has occurred somewhere out of the field of view. *Forked*, called also *zig-zag* or *chain lightning*, is the light pro-

duced by the disruptive discharge between cloud and cloud, or between cloud and earth. *Ball* lightning is of a very different character. Many of the so-called "balls" are undoubtedly optical illusions, and Faraday himself stated that they were incompatible with what we know of electric discharge. "There may be balls of fire," said he, "but they are not electrical." Yet the evidence of balls of blue fire, rolling along the surface of the sea and suddenly terminating in terrible electric discharges over ships, masses of fire rolling along the ground toward buildings, ending in fatal discharge, and many other cases, leaving it unquestionable that some such phenomenon as globular or ball lightning exists. Some have explained them to be balls of incandescent gas, rendered so by the discharge. According to others, ball lightning is a luminous spot on the earth, terminating a current or brush discharge from a negatively charged cloud. This spot moves with the cloud. Illuminated lines of force are projected from some point in the cloud upon the earth. The effect has been very successfully repeated experimentally, and this fact is suggested as an explanation of the photographic images imprinted on the skin of persons struck by lightning.—*To-Day*.

VII. Miscellaneous.

1. THE PUBLIC SCHOOL TEACHER.

On the outskirts of the forest,
 Twixt the shadow and the sunshine,
 Stands the ancient time-worn school house,
 Where the children flock together,
 Of all ages and all sizes.
 In all seasons, through all weather,
 Come they here in quest of wisdom;
 Come they here day after day,
 At the doorway of the school house
 Stands the ancient time-worn teacher;
 Stands she there to watch the gambols
 Of the young rogues sporting near her,
 Of the maidens gaily playing
 In the sunshine and the shadow,
 Little thinking of the future;
 Thinking naught but of the present;
 Dreaming not that care and sorrow
 E'er will dim those eyes so sparkling,
 Flashing now in their bright beauty.
 Still the ancient teacher stands there,
 Watching sunshine and the shadow,
 Watching birds so freely winging
 Their swift flight o'er wood and valley
 In the glad and joyous sunshine;
 Over brooklets, over streamlets,
 Singing their sweet songs of praises,
 Echoed back by hills and forests
 In that peaceful "land of plenty,"
 Stands she still there in the sunlight,
 Stands she there so sadly thinking,
 On the past and of the future,
 Of the years that have flown o'er her,
 Of the years that still must come;
 Of the lonely days and weary
 She has spent in that old school room—
 Days that ne'er will come again,
 Whilst the fickle, sportive sunshine,
 Gaily playing with her wrinkles,
 Idly dancing, flashing, glimmering,
 As she stands there pale and pensive,
 Thinking of the days when others
 Watched her gambols midst the children,
 Whilst her eyes had flashed and glistened—
 Eyes grown dull by care and weeping—
 Flashed in sunlight and in starlight;
 While her happy heart was beating
 Merry music in her bosom,
 And she thinks of days when lovers—
 Brave and noble she had thought them—
 Lovers came to woo and win her
 From her cares in that old school room,
 From the children flocking round her,
 From the books she pondered over,
 From the studies loved so dearly,
 Turned she sternly, firmly from them,
 Heeded not their sighs and groanings,
 Thought not of their pain and anguish
 As they moaned in grief most bitter;
 Thought she only of her mission
 To those dear and cherished children.
 Soon they ceased from their despairing,
 Walking lonely in the starlight,
 Weeping wildly in the moonshine;

Soon they dried their eyes—those lovers—
 Ere their grief did blind and dim them ;
 Wooed they Eve's fair willing daughters,
 Won them ; and they soon forgot her,
 Sitting in her lonely school-room.
 There the years had come and found her,
 Stolen all her glad young beauty ;
 Stolen all her mirth and gladness,
 Stands she there still idly musing
 On the past and of the future,
 While gay and thoughtless children,
 Sporting round with merry laughter,
 Think not of the ancient maiden
 Standing there so idly musing
 On the past and of the future.
 Starts she from her listless dreaming ;
 Rings a bell for speedy silence ;
 Stops the mirth of those bright creatures
 As they enter that old school-room,
 Con their tasks with eager faces
 While the low voice of the teacher
 Breaks the stillness of the school-room.
 Hears she now long, weary lessons,
 While her brain is wildly throbbing,
 While her heart is quickly beating,
 While her heart is madly longing
 For the sunshine and the shadow,
 For the mountain and the valley,
 For a home of love and quiet.
 O, the hours of weary longing !
 O, the years so long and dreary !
 Sitting in that dreary school-room.
 Here, thro' sunshine and thro' tempest,
 In the pleasant days of summer,
 When the birds sing in the forest,
 And the brooklets run and glisten,
 Comes she to fulfil her mission,
 Through the long and dreary winter,
 When the cold and cruel winter
 Stops the merry laughing streamlets,
 And the snow so pure is drifting
 Through the village and the forest,
 Covering all the roads and by-paths,
 Comes she to fulfil her mission.
 Thus each New Year came and found her,
 Robbed her of her youth and beauty,
 Robbed her of her mirth and gladness,
 Left her toiling lonely onward.
 Point some now with scornful finger
 At the ancient care-worn maiden,
 Touched by time's unsparing finger,
 Walking lonely thro' the life-path.
 Think they not of joys relinquished—
 Think they not of her young beauty
 Offered freely—given freely—
 When she felt this was her mission ?
 Think they not of good seeds planted
 In the hearts of many children,
 Taking root and bearing blossoms—
 Blossoms that will bloom in beauty
 In the "Islands of the Blessed,"
 In the "Land of the hereafter ?"
 Soon she'll come no more to labour,
 Come no more to muse and suffer,
 But she'll roam in paths of beauty
 Where the flowers for ever blooming
 Waft their sweetness and their fragrance.
 And the rippling flowing rivers
 Murmur their delightful music,
 While their shores are lined with blessed ones,
 Robed in white and shining garments,
 In the Kingdom of the Faithful,
 In that Land of Happiness.

Read before the Delaware County Teachers' Institute, by Mrs. Bass.

2. GOD SAVE THE QUEEN.

We translate the following from the *Album de la Minerve*:

ENGLAND OWES "GOD SAVE THE QUEEN" TO FRANCE.

One day Madame de Maintenon had expressed the desire of having a canticle—words and music—for the young ladies of the Royal Convent of St. Cyr, to be sung whenever Louis XIV. entered the chapel. Her wish was soon fulfilled, for at the next visit of the King to St. Cyr, the girls sang the following canticle :

Grand Dieu, sauvez le roi !
 Grand Dieu, vengez le roi !
 Vive le roi !

Que toujours sois glorieux
 Louis victorieux,
 Vois ses ennemis
 Toujours soumis !

Some after time, the illustrious Handel, being in France, heard the canticle in Versailles, accompanied by a brilliant orchestra. Struck by its power and majestic effect, he obtained a copy from the Superior of St. Cyr, and on his return to England presented it to George the First. The author of this now immortal production was Luillie, the chapel master of the French King.

3. NAMES OF THE UNITED STATES.

A correspondent having inquired why the States are called by their present names, and what are their derivation and meaning, an exchange answers as follows :

MAINE.—So called from the province of Maine, in France, in compliment to Queen Henrietta, of England, who, it has been said, owned that province. This is the commonly received opinion.

NEW HAMPSHIRE.—Named by John Mason, in 1639 (who with another, obtained the grant from the crown), from Hampshire County, in England. The former name of the domain was Laconia.

VERMONT.—From the French "vert" "mont," or green mountain, indicative of the mountainous nature of the State. The name was first officially recognized January 16, 1777.

MASSACHUSETTS.—Indian name signifying "the country about the great hills."

RHODE ISLAND.—This name was adopted in 1644 from the Island of Rhodes, in the Mediterranean, because of its resemblance to that island.

CONNECTICUT.—This is the English orthography of the Indian word Quon-eh-ta-cut, signifies "the long river."

NEW YORK.—Named by the Duke of York under colour of the title given him by the English crown in 1664.

NEW JERSEY.—So called in honour of Sir George Carteret, who was Governor of the Island of Jersey, in the British Channel.

PENNSYLVANIA.—From William Penn, the founder of the colony, meaning "Penn's Woods."

DELAWARE.—In honour of Thomas West, Lord de-la-Ware, who visited the bay, and died there in 1610.

MARYLAND.—After Henrietta Maria, Queen of Charles I., of England.

VIRGINIA.—So called in honour of Queen Elizabeth, the "virgin queen," in whose reign Sir Walter Raleigh made the first attempt to colonize that region.

NORTH AND SOUTH CAROLINA, were originally in one tract, called "Carolina," after Charles IX., of France, in 1504. Subsequently, in 1665, the name was altered to Carolina.

GEORGIA.—So called in honour of George II., of England, who established a colony in that reign in 1732.

FLORIDA.—Ponce de Leon, who discovered this portion of North America in 1512, named it Floriday, in commemoration of the day he landed there, which was the Pasques de Flores of the Spaniards, or "Feast of Flowers," otherwise known as Easter Sunday.

ALABAMA. Formerly a portion of Mississippi Territory, admitted into the Union as a State in 1819. The name is of Indian origin, signifying "Here we rest."

MISSISSIPPI.—Formerly a portion of the province of Louisiana. So named in 1800, from the great river on the western line. The term is of Indian origin, meaning "long river."

LOUISIANA.—From Louis XIV., of France, who, for some time prior to 1763, owned the territory.

ARKANSAS.—From "Kansas," the Indian word for "smoky water," with the French prefix "arc," bow.

TENNESSEE.—Indian for "the river of the big bend," i. e., the Mississippi, which is its western boundary.

KENTUCKY.—Indian for "at the head of the river."

OHIO.—From the Indian, meaning "beautiful." Previously applied to the river which traverses a greater part of its borders.

MICHIGAN.—Previously applied to the lake, the Indian name for a fish-weir. So called from the fancied resemblance of the lake to a fish-trap.

INDIANA.—So called in 1802, from the American Indians.

ILLINOIS.—From the Indian "illini," men, and the French suffix "ois," together signifying "tribe of men."

WISCONSIN.—Indian term for a "wild-rushing channel."

MISSOURI.—Named in 1821 from the great branch of the Mississippi which flows through it. Indian term, meaning "muddy."

IOWA.—From the Indian, signifying the "drowsy ones."

MINNESOTA.—Indian for "cloudy water."

CALIFORNIA.—The name given by Cortes, the discoverer of that region. He probably obtained it from an old Spanish romance, in which an imaginary island of that name is described as abounding in gold.

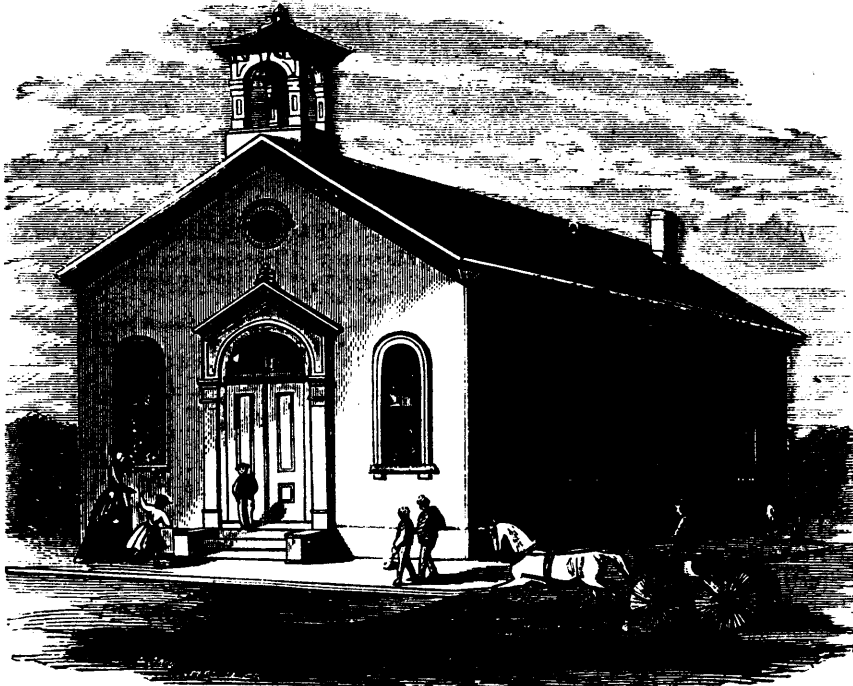
OREGON.—According to some, from the Indian Oregon, “river of the west.” Others consider it derived from the Spanish “oregano,” wild marjoram, which grows abundantly on the Pacific coast.

4. IRISH UNIVERSITY EDUCATION.

Among the measures dwelt upon in the Queen's speech was one for settling the question of University Education in Ireland. In the year 1591 letters patent were issued by Queen Elizabeth incorporating Trinity College, Dublin, as the “Mother of an University.” Many able and erudite men have completed their education there. The regular income, partly from students' fees, but chiefly from lands, is estimated at \$250,000 per annum. There are about 360 students in each year. In 1845 three Queen's colleges were esta-

lished by charter in Ireland, since united as the Queen's University, and open to all denominations. There is Maynooth College, exclusively for students who are destined to receive holy orders in the Catholic Church; this was established and endowed by Parliament. There, also, is the Catholic University, established in 1855. Trinity College, Dublin, always has been a strictly Protestant institution, receiving students, however, of all denominations, and allowing them to graduate; nay, allowing them to compete for the scholarships, fellowships, and some of the professorships—only with the reservation that, if successful, they can only hold these prizes by taking certain oaths as Protestants. As there are thirty-five fellowships, each yielding from \$2,000 to \$10,000 a year for life, and seventy scholars each having about \$1,000 per annum, it will be seen that these are rich prizes.

VIII. IMPROVED SCHOOL ARCHITECTURE.



No. 1.—DESIGN FOR RURAL SCHOOL HOUSE.

This engraving presents an illustration of a neat style of school house suitable for a rural school section. The interior is arranged as follows :

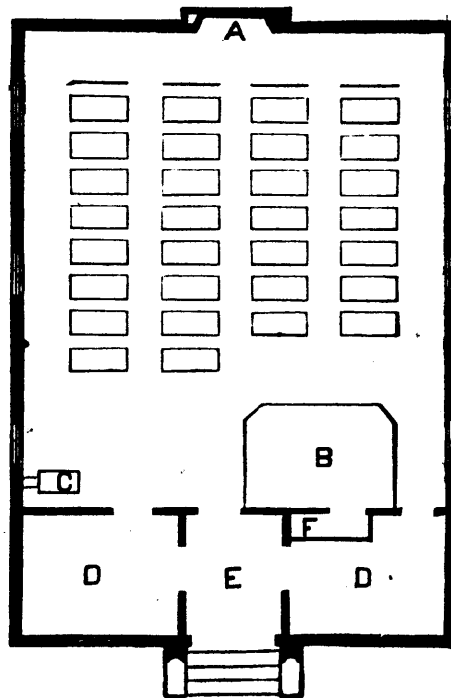
- A — Fire-place and Chimney.
- B — Teacher's Platform.
- C — Stove.
- D — Bonnet and Cap Rooms.
- E — Entrance Hall.

E is the front hall, with a door directly to the school-room for teachers and visitors, (never for pupils, as a rule), and to the right and left into rooms D; one for boys and one for girls, from which they pass, respectively, through another door to the school-room. As a rule, boys and girls should have separate entrances into the school-house; and in the new prize plant received from the Education Department this has been provided for.

B is the platform, and F, the teacher's closet.

C is the stove, the pipe going to the right, and turning at right angles through the centre of the room to the chimney, A, which has a small fire-place, with hearth, with register for the outlet of cold and impure air.

The side windows nearest the front



INTERIOR OF THE RURAL SCHOOL HOUSE.

are inserted for external appearance; but it might be well to permanently close them on the interior. The remaining four side windows, and two in the rear (not shown in the diagram), are amply sufficient; and all should be furnished with substantial inside blinds. Outside blinds go soonest to decay, and they are so inconvenient, that they will often fail to be opened or shut when they should be.

We would again repeat here what we have before said on the subject of seating the pupils opposite the window. This should never be done, as such an arrangement cannot be otherwise than injurious to the eyes of the pupil, since the strong light is constantly shining in to them. Pupils should always be seated with their backs or sides to the windows. There should be no window in front of them; but, if any, they should be windows facing north, and not those facing south. If from the structure of the lot or the house this arrangement is impossible, the window should be muffed or otherwise permanently darkened or shaded.

IX. Educational Intelligence.

—MANITOULIN SCHOOLS.—The benefits of the excellent School System of Ontario are being felt on this distant but interesting island. Two schools are in successful operation, and more are projected. At the annual meeting of S. S. No. Two, Tekemagh, held according to law on Wednesday, 8th January, R. A. Lyon, Esq., one of the school trustees, gave an excellent account of the state of the school at St. Michael's Bay, and urged an increase of salary, as a substantial testimony of their appreciation of the earnest and successful endeavours of the teacher, Mr. William G. Stewart. This appeal was promptly responded to, and good subscriptions, which will advance the salary at least fifty dollars per annum, were at once made. The more necessary maps, "The World," and the "Map of the Dominion," have been recently provided for the school. The more advanced pupils can already parse, compound and complex sentences at sight, and are daily acquiring more insight into etymology. Mr. John Lyon, of Esquesing, who is with us showed his intelligent appreciation of the value of the exertions made in the school, by subscribing \$10 towards its support. The system pursued by Mr. S. is that taught in Wood's Sessional school, of Edinburgh, where he (Mr. Stewart) was formerly a pupil teacher.—Com.

X. Departmental Notices.

HIGH SCHOOL INSPECTORS.

In consequence of the death of the Rev. J. G. D. Mackenzie, M. A., the Council of Public Instruction, at a meeting held on the 20th instant, appointed Mr. J. M. Buchan, M. A., Head Master of the Hamilton Collegiate Institute, to the office of Inspector of High Schools. Mr. Buchan's University course was a distinguished one. He obtained the first general proficiency scholarship at his matriculation in 1858; the scholarship in Metaphysics and Ethics in 1860; the second scholarship in Modern Languages in 1861, and at the final examination for B. A. in 1862, he obtained the silver medal in the department of Modern Languages. Since his graduation, Mr. Buchan has been at the head of the High School and Collegiate Institute at Hamilton, which he has brought to a very high state of efficiency. Mr. Buchan is also appointed a member of the Central Committee of Examiners, and will enter on his duties on 1st April.

A third inspector being now provided for in the estimates of this year, the Council, on the 25th instant appointed Mr. S. Arthur Marling, M. A., head master of the Whitby High and Public Schools, to that position. Mr. Marling was educated at Upper Canada College and at University College, Toronto, which he entered in 1850. During a distinguished University career, he uniformly obtained first-class honours in classical literature. In 1851, he obtained prizes for proficiency in Greek and Latin classics, and in composition in English verse. In 1852 he was placed first in the first class in *Litteris Humanioribus*, and gained the Chancellor's medal for the Evidences of Natural and Revealed Religion. In 1853 on taking his degrees he carried off the highest University distinction and the gold medal for classics. Mr. Marling has, during the subsequent twenty years been a successful head master of Grammar and High Schools in Bond Head, Newmarket, Chatham, and more recently at Whitby, where he has been very fortunate in his administration. He will enter on his duties in July, and will also act as a member of the Central Committee of Examiners.

ASSISTANTS IN HIGH SCHOOLS A NECESSITY.

Trustees of High Schools will bear in mind that they are required to employ an Assistant Master, in order to give effect to the new programme. The qualifications of these assistants are, that they shall either hold a First or Second Class Public School Teacher's certificate, or at least be certified as an undergraduate in the faculty of Arts, of good standing in some university in Her Majesty's dominions.

The Trustees of each High School, now established, are required, by the High School Act to employ *two* masters in their School, whatever may be the number of pupils in attendance. In justice to these new Schools, and in order to carry out the prescribed programme of studies in High Schools, this rule will, at the close of the current six months, be applied to all the High Schools in Ontario. When the application of the new principle of "payment by results" (authorized by the Act of 1871), will come into force, it will necessitate a more thorough and satisfactory system of instruction than at present exists in many of the High Schools.

PRINTED SHEETS FOR SCHOOLS.

1. The New Programme.....	} Large Sheets.	} The ten sheets sent free of postage for 50 cents.
2. The New Limit Table		
3. A Blank Time Table.....		
4. Duties of Pupils.....		
5. The Ten Commandments		
6. Library Regulations	} Small Sheets.	
7. List of authorized Text Books.....		
8. Merit Cards and their uses.....		
9. Hints on constructing Time Tables.....		
10. Departmental Notices.....		

TEACHERS RETIRED FROM THE PROFESSION.

STATEMENT of Teachers who have given notice of retirement from the profession, as provided by the School Law of 1871, 34 Victoria, chapter 33, section 43.

(Continued from December number.)

	Name.	County.	Subscription returned, and Date
85	Agnew, Robert	Grey	\$3, February, 1873.
86	Campbell, James	Peterboro'	3, January, "
87	Cross, W. H.	Halton	4, March, "
88	Dingman, W. E.	P. Edward	2, January, "
89	Eastman, S. H.	Wellington	3, January, "
90	Elliott, Geo. M.	Elgin	3, March, "
91	Fitzwilkins, O.	Lincoln	2, January, "
92	Fitzsimmons, W.	Wellington	4, March, "
93	Forsyth, David	Waterloo	2, January, "
94	Gunn, Robert	Essex	3, January, "
95	Godbold, S.	Waterloo	3, January, "
96	Graham, John	Wellington	2, January, "
97	Joseph, Anthony	Waterloo	3, February, "
98	Laing, S. L.	Simcoe	3, January, "
99	Leroy, S. E.	Prescott	3, February, "
100	Ludlow, James	Peel	3, February, "
101	McDougall, P.	Middlesex	3, March, "
102	McKenzie, D. C.	Wellington	3, March, "
103	McCann, J. A.	Leeds	3, Feb. & Mar. "
104	McGregor, A. F.	Victoria	3, February, "
105	McIntyre, Neil	Elgin	3, March, "
106	McIntyre, Alex.	Essex	4, March, "
107	McLaren, Alex.	York	4, January, "
108	McKee, George	Oxford	3, February, "
109	Mitchell, J. C.	Durham	3, March, "
110	Muir, J. M.	Waterloo	2, February, "
111	Morrison, M. M.	Bruce	2, January, "
112	Nesbitt, A. K.	Simcoe	3, January, "
113	O'Neill, James	Peterboro'	2, February, "
114	O'Neill, Michael	Victoria	2, February, "
115	Parliament, H. J.	Northum	3, February, "
116	Riddell, George	Northum	2, March, "
117	Robertson, J. P.	Carleton	3, January, "
118	Snowdon, T. J.	Simcoe	3, January, "
119	Smith, J. B.	Durham	3, January, "
120	Spencer, H. H.	Simcoe	3, January, "
121	Stewart, D. A.	Middlesex	3, January, "
122	Sinclair, A. J.	Elgin	3, January, "
123	Stanley, V. M.	Oxford	3, January, "
124	Silcox, J. B.	Lambton	3, February, "
125	Wright, Arthur	Grey	3, March, "
126	Williams, James R.	Elgin	2, March, "

TABLET READING SHEET LESSONS.

Being the First Book of Lessons in Tablet form, in thirty-three sheets, 75 cents (By post, postage paid) . . . Price \$1 00
 Mounted on 17 sheets of thin cardboard " 2 00
 Mounted on 17 sheets of stiff cardboard, varnished " 4 00
 Mounted on 33 sheets of stiff cardboard, varnished " 6 00
 The 100 per cent is allowed on those and the Geography sheets.