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JOURNAL OF



EDUCATION,

Upper

Canada.

VOL. XVII.

TORONTO: JUNE, 1864.

No. 6.

CONTENTS OF THIS NUMBER:

	PAGE
I. APPORTIONMENT OF THE LEGISLATIVE SCHOOL GRANT FOR 1864	81
II. CORRESPONDENCE OF THE JOURNAL—(1) Physical Culture in connection with Mental, considered. (2) Education a Progressive Work	84
III. PAPERS ON EDUCATION IN OTHER COUNTRIES—(1) The Educational System in Germany. (2) A Ragged School in Cairo	85
IV. PAPERS ON PRACTICAL EDUCATION—(1) Seven Rules for Teaching. (2) The Schoolmaster's Encouragements. (3) Encouragement to Young Teachers. (4) Eight Methods of Spelling	86
V. PAPERS ON LITERARY SUBJECTS—(1) The Improvement of Opportunities. (2) Educational Literature for Teachers. (3) Encouraging Scholars to Read at Home. (4) Reading aloud in the Family	88
VI. PAPERS ON SCIENTIFIC SUBJECTS—(1) Scraps of Science. (2) Points of Compass. (3) Drawing Talent in Children. (4) An Ounce and a Ton Weight. (5) How to View the Sun through a Telescope. (6) The Use of the Barometer. (7) Scientific Expedition to Palestine	89
VII. PAPERS ON NATURAL HISTORY—(1) Historical Sketch of Natural History in Canada. (2) Why Bees Work in the Dark. (3) Use of Flowers	90
VIII. BIOGRAPHICAL SKETCHES—No. 27. Abraham Geener, M.D. 28. Alaric A. Watts, Esq. 29. Marshal Pelissier. 30. Meyerbeer. 31. Major-Gen. J. B. E. Stuart. 32. Nathaniel Hawthorne, Esq. 33. Rev. Dr. Hitchcock	92
IX. PAPERS RELATIVE TO THE BIBLE—(1) Lord Lyndhurst's Faith in the Bible. (2) Personal Power of the Bible. (3) The Unity of the Bible	93
X. MISCELLANEOUS	94
XI. EDUCATIONAL INTELLIGENCE	95
XII. DEPARTMENTAL NOTICES—Provincial Certificates granted last Session.....	96

APPORTIONMENT OF THE LEGISLATIVE SCHOOL GRANT FOR UPPER CANADA, FOR 1864.

Circular to the Clerk of each County, City, Town and Village Municipality in Upper Canada.

SIR,—I have the honour to transmit herewith a certified copy of the apportionment for the current year, of the Legislative School Grant to each City, Town, Village, and Township, in Upper Canada. Although I have not yet received from the Government the usual intimation of the issue of the customary warrant, I presume that the apportionment will be payable at this Office, to the Agent of the Treasurer of your Municipality, on the 1st of July, provided that the School Accounts have been duly audited, and they, together with the Auditors'

and Local Superintendents' Reports, have been duly transmitted to this Department.

The basis of apportionment to the several Counties, Cities, Towns, Villages, and Townships for this year, is the population as reported in the census of 1861, which was also adopted last year, and I have no more generally accurate statistics of a later date.

Where Separate Schools exist, the sum apportioned to the Municipality has been divided among the Common and Roman Catholic Separate Schools therein, according to the average attendance of pupils at both classes of Schools during last year, as reported by the Trustees.

The gross sum apportioned to all the schools this year is about \$6,000 more than that apportioned last year.

It is particularly desirable that the amounts should be applied for not later than the third week in July, as it is inconvenient to delay the payment. There are, however, a number of municipalities which have not yet sent in their account of school moneys, now several months over due, and in these cases the payment must necessarily be deferred until the law has been complied with.

I trust that the liberality of your Council will be increased in proportion to the growing necessity and importance of providing for the sound and thorough education of all the youth of the land.

I am Sir, your obedient Servant,

Education Office,

E. RYERSON.

Toronto, 16th June, 1864.

Apportionment to Counties, for 1864.

1. COUNTY OF GLENGARRY.		
Townships.		Apportionment.
Charlottenburgh		\$743 00
Do. for Separate Schools.....	\$60 00	
Kenyon		582 00
Lancaster		508 00
Do. for Separate Schools.....	39 00	
Lochiel		547 00
Do. for Separate School	61 00	
Total for County, \$2540.	\$160 00	\$2380 00

2. COUNTY OF STORMONT.		
Townships.		Apportionment.
Cornwall		\$600 00
Finch		287 00
Osnabruck		676 00
Roxborough		380 00
		\$1943 00

3. COUNTY OF DUNDAS.		
Townships.		Apportionment.
Matilda		\$582 00
Mountain		441 00
Williamsburgh		561 00
Winchester		400 00
		\$2074 00

4. COUNTY OF PRESCOTT.		
Townships.		Apportionment.
Alfred		\$163 00
Caledonia		129 00
Hawkesbury, East		364 00
Do. for Separate Schools.....	\$143 00	
Do. West		262 00
Longueuil		193 00
Plantagenet, North		268 00
Do. for Separate School	36 00	
Do. South		148 00
		\$179 00
Total for County, \$1706.		\$1527 00

5. COUNTY OF RUSSELL.		
Townships.		Apportionment.
Cambridge		\$80 00
Clarence		207 00
Cumberland		313 00
Russell		217 00
		\$817 00

6. COUNTY OF CARLETON.		
Townships.		Apportionment.
Fitaroy		\$388 00
Gloucester		542 00
Goulbourn		840 00

COUNTY OF CARLETON—Continued.		
Townships.		Apportionment.
Gower, North		\$309 00
Huntley		818 00
March		174 00
Marlborough		260 00
Do. for Separate School	\$19 00	
Nepean		523 00
Do. for Separate School	7 00	
Osgoode		519 00
Torbolton		81 00
		\$26 00
Total for County, \$3488.		\$3462 00

7. COUNTY OF GRENVILLE.		
Townships.		Apportionment.
Augusta		\$663 00
Edwardsburgh		623 00
Do. for Separate School	\$42 00	
Gower, South		130 00
Oxford on Rideau		526 00
Do. for Separate School	\$10 00	
Wolford		355 00
		\$53 00
Total for County, \$2340.		\$2297 00

8. COUNTY OF LEEDS.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Bastard, Burrass South, Crosby North, etc.

9. COUNTY OF LANARK.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Bathurst, Beckwith, Burrass North, etc.

10. COUNTY OF RENFREW.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Admaston, Alcona, Alice, etc.

11. COUNTY OF FRONTENAC.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Barrie and Clarendon, Bedford, etc.

12. COUNTY OF ADDINGTON.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Amherst Island, Anglessea, etc.

13. COUNTY OF LENNOX.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Adolphustown, Fredericksburgh North, etc.

14. COUNTY OF PRINCE EDWARD.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Ameliasburgh, Athol, etc.

15. COUNTY OF HASTINGS.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Elzevir, Hungerford, etc.

16. COUNTY OF NORTHUMBERLAND.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Alnwick, Brighton, etc.

17. COUNTY OF DURHAM.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Cartwright, Cavan, etc.

18. COUNTY OF PETERBOROUGH.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Asphodel, Belmont and Methuen, etc.

19. COUNTY OF VICTORIA.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Anson, Bexley, etc.

20. COUNTY OF ONTARIO.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Brock, Mara, etc.

21. COUNTY OF YORK.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Etobicoke, Georgina, etc.

22. COUNTY OF PEEL.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Albion, Caledon, etc.

23. COUNTY OF SIMCOE.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Adjala, Essa, etc.

24. COUNTY OF HALTON.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Esquesing, Nassagaweya, etc.

25. COUNTY OF WENTWORTH.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Ancaster, Barton, etc.

26. COUNTY OF BRANT.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Brantford, Burford, etc.

27. COUNTY OF LINCOLN.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Caistor, Clinton, etc.

28. COUNTY OF WELLAND.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Bertie, Crowland, etc.

29. COUNTY OF HALDIMAND.

Table with 3 columns: Townships, Apportionment, and Total. Lists townships like Canborough, Cayuga North, etc.

180. COUNTY OF NORFOLK.

Table with 3 columns: Townships, Apportionment, and Total. Includes entries like Charlotteville, Houghton, Middleton, etc.

31. COUNTY OF OXFORD.

Table with 3 columns: Townships, Apportionment, and Total. Includes entries like Blandford, Blenheim, Derham, etc.

32. COUNTY OF WATERLOO.

Table with 3 columns: Townships, Apportionment, and Total. Includes entries like Dumfries North, Waterloo North, etc.

33. COUNTY OF WELLINGTON.

Table with 3 columns: Townships, Apportionment, and Total. Includes entries like Amaranth, Arthur, Erin, etc.

34. COUNTY OF GREY.

Table with 3 columns: Townships, Apportionment, and Total. Includes entries like Artemesia, Benhick, Collingwood, etc.

35. COUNTY OF PERTH.

Table with 3 columns: Townships, Apportionment, and Total. Includes entries like Blanchard, Downie, Easthope North, etc.

36. COUNTY OF HURON.

Table with 3 columns: Townships, Apportionment, and Total. Includes entries like Ashfield, Colborne, Goderich, etc.

COUNTY OF HURON—Continued.

Table with 3 columns: Townships, Apportionment, and Total. Includes entries like Morris, Stanley and Bayfield, Stephen, etc.

37. COUNTY OF BRUCE.

Table with 3 columns: Townships, Apportionment, and Total. Includes entries like Albemarle, Amabel, Arran, etc.

38. COUNTY OF MIDDLESEX.

Table with 3 columns: Townships, Apportionment, and Total. Includes entries like Adelaide, Biddulph, Carradoc, etc.

39. COUNTY OF ELGIN.

Table with 3 columns: Townships, Apportionment, and Total. Includes entries like Aldborough, Bayham, Dorchester, etc.

40. COUNTY OF KENT.

Table with 3 columns: Townships, Apportionment, and Total. Includes entries like Camden and Gore, Chatham and Gore, etc.

41. COUNTY OF LAMBTON.

Table with 3 columns: Townships, Apportionment, and Total. Includes entries like Bosanquet, Brooke, Dawn, etc.

42. COUNTY OF ESSEX.

Table with 3 columns: Townships, Apportionment, and Total. Includes entries like Anderdon, Colchester, Gosfield, etc.

Apportionment to Cities, Towns, and Villages, for 1864.

Large table with 4 columns: Cities, Common Schools, R. C. Sep. Schools, and Total. Lists various cities and their apportionments.

Table with 4 columns: Incorporated Villages, Common Schools, R. C. Sep. Schools, and Total. Lists various villages and their apportionments.

Summary of apportionment to counties for 1864.

	Common Schools.	Separate Schools.	Total.
1. Glengarry	2580 00	160 00	2540 00
2. Stormont.....	1945 00	.....	1945 00
3. Dundas.....	2074 00	.....	2074 00
4. Prescott	1527 00	179 00	1706 00
5. Russell	817 00	.....	817 00
6. Carleton	3462 00	26 00	3488 00
7. Grenville.....	2297 00	52 00	2349 00
8. Leeds	3605 00	.....	3605 00
9. Lanark	3268 00	15 00	3283 00
10. Renfrew	2129 00	59 00	2188 00
11. Frontenac	2858 00	147 00	3005 00
12. Addington	1923 00	81 00	2004 00
13. Lennox	915 00	.....	915 00
14. Prince Edward	2156 00	.....	2156 00
15. Hastings	4869 00	43 00	4912 00
16. Northumberland	4012 00	18 00	4030 00
17. Durham	3742 00	.....	3742 00
18. Peterborough.....	2300 00	39 00	2339 00

SUMMARY—Continued.

	Common Schools.	Separate Schools.	Total.
19. Victoria	2527 00	.....	2527 00
20. Ontario.....	4423 00	.....	4423 00
21. York	6490 00	126 00	6616 00
22. Peel	2912 00	22 00	2934 00
23. Simcoe	4768 00	34 00	4792 00
24. Halton	2452 00	.....	2452 00
25. Wentworth	3440 00	53 00	3473 00
26. Brant	2470 00	.....	2470 00
27. Lincoln	2094 00	46 00	2140 00
28. Welland	2311 00	29 00	2340 00
29. Haldimand	2418 00	34 00	2452 00
30. Norfolk	8189 00	17 00	8206 00
31. Oxford	4760 00	.....	4760 00
32. Waterloo	3897 00	133 00	3630 00
33. Wellington	4743 00	189 00	4932 00
34. Grey	4681 00	178 00	4859 00
35. Perth	3710 00	38 00	3748 00
36. Huron	4794 00	49 00	4843 00
37. Bruce	3043 00	60 00	3103 00

SUMMARY—Continued.

	Common Schools.	Separate Schools.	Total.
38. Middlesex	6391 00	97 00	6488 00
39. Elgin	3538 00	.....	3538 00
40. Kent	3093 00	110 00	3203 00
41. Lambton.....	2579 00	.....	2579 00
42. Essex.....	2265 00	50 00	2315 00
District of Algoma	218 00	.....	218 00
	131717 00	2044 00	133761 00
GRAND TOTALS.			
Total Counties and Districts	131717 00	2044 00	133761 00
“ Cities	8619 00	3843 00	12462 00
“ Towns	10918 00	2236 00	13154 00
“ Villages	6177 00	373 00	6550 00
	\$157431 00	8496 00	165927 00

II. Correspondence of the Journal.

1. PHYSICAL CULTURE IN CONNECTION WITH MENTAL CONSIDERED.

An Essay read before the School of Section No. 5, Township of Hope, at a Public Examination, on the 29th of March, 1864, by Mr. W. H. Harris, School Trustee.

The foundation of perfection in man is a sound physical organization. It is the base from which all thoughts and actions must rise. Is it not important in the rearing of any structure in which great interests are involved to have a firm foundation? If an architect should endeavour to rear a costly structure upon a foundation that would not last until the work was completed, or if, after having completed it, it was found to be untenable, would he not justly be called a fool? If a vessel were to be built to carry the most costly gems or the most valuable productions of the earth, would it not be important to have it so constructed and secured in every joint that it would brave the stormy seas, and land its costly treasures at their proper destination? Would it not be important to have machinery of the best metal, and skilful pilots to guide her on her way. Or rather, should no attention be paid to the vessel, leaving that to luck or chance,—taking pains only to secure a valuable cargo, and as much as possible of it? And if, under such circumstances, a vessel were to put out to sea without compass or chart, and with an engineer who knew nothing about the machinery or how to work it, would it be wondered at if she drifted to the rocks and was dashed to pieces? How many youths are being lost by not being instructed properly. Treasures have been lavished upon them; they may have studied almost unceasingly to learn everything else but that,—that which was most useful for them to know. A cargo of expensive knowledge has been heaped upon them, while their physical condition and culture has been entirely neglected. And what is the consequence? Their heads are large and their bodies small; they have will but no power. They certainly drift to the rock. A knowledge of the laws that govern human life and of proper physiological conditions, would prevent such calamities. If physical culture was taught in our schools as the motive power of all actions; if physical perfection was regarded as the condition only in which man is capable of the highest enjoyment, and of contributing the greatest amount of labour for the good of his race. Then the relations between mind and matter would be more properly understood. The question simply implies a knowledge and an application of physiological laws. Man is made of organs, and upon the strength of these organs depend his vitality and powers of endurance. His organic system is subservient to natural laws, and any infraction of those laws is sooner or later visited with a penalty, because Nature is a strict accountant and cannot be cheated. How preposterous the idea that Nature ordains a penalty, and that penalty can be ignored by taking poisonous drugs into the stomach. Therapeutics is seriously misunderstood by such a science of medication as that. To know the law and obey it is to live, and, *vice versa*, to violate it is to suffer. Suppose a delicate child, whose amount of vitality under the most favourable circumstances will not permit it to live beyond the age of twenty years (in consequence of the transgressions of his parents), should be put to hard study, and should be deprived of pure air and exercise, what would the result be? Why, immediate suffering and dissolution. It would be the penalty of transgressing natural laws. Other things being equal, a fair proportion of study would not be destructive to vitality; but an excess of it to an enfeebled constitution would be death, because excessive labour of the brain uses up nervous energy very fast, and if the re-supply does not keep pace, the consequence is exhaustion. The records of the great men who

have passed away from earth show that they were possessed of strong bodies. Witness Washington, Webster, Wellington, Alexander the Great, &c. Buonaparte, though a small man, was plump, round, and well organized. Such evidences teach us to cultivate bodily development, and correct personal habits, if we desire health. If we desire to be useful, we should indulge in nothing contrary to the eternal laws of nature. Correct personal habits will secure, where it is possible to exist, longevity and full enjoyment. How absurd to suppose that the teacher of any public school is setting a proper example by using that noxious and filthy weed, tobacco. He may make himself drunk with it; he may poison himself through and through; he may befoul the atmosphere of the school room with his nauseous juice and breath, and sicken the tender stomachs of the young, and still be called a model teacher and be thought a pattern worthy of imitation by young America. Alas, poor sons of America, you little know how many have been slain by this subtle poison! If you but knew how it dims and degrades the mind, depraves offspring, obstructs the depurating organs of the body, thereby sowing the seeds of disease and premature decay, and often times sudden death. If you could but count the graves of its victims, you would turn with horror and alarm from it. Though prince and peasant may indulge in it, the consequences are the same; and now very few there are that even suspect, when they are in the midst of disease and death, that personal habits have anything to do with, or any connection with such.

Why are not the young ladies of our towns and cities generally, plump, rosy-cheeked and muscular? Perhaps they never lift anything heavier than a pin-cushion, and to be exposed to the burning rays of the sun would be intolerable and barbarous. Poor bloodless, muscleless, pale, wasp-waisted, fashionable darlings, you are to be the mothers of our future great men (pity on them). The women of Germany work extensively out of doors, plough the ground with their cows; in fact, do the mens' work, and who ever heard of their being delicate? Dr. Winship, from a poor consumptive dyspeptic, at the age of eighteen, has by powerful exercises of short duration, every other day, become the strongest man in the world. He can lift 1,200 lbs., enough to crush down a horse. In point of intelligence, he will compare favourably with others of his profession; therefore he is not all muscle and no brains, but the perfect type of a man, one whose physical cultivation has been attended to. Suppose that we were rearing the plant of a tree that bears delicious fruit. We are anxious to have the coveted fruit as soon as possible; and suppose that we pay no attention to the growth of the tree, but strive only to make it bear, what would the consequence be? Probably an unhealthy and dwarfish tree, and incapable of producing any fruit. But to train it, and nurture it, prune it, and make it comely, give it light, heat, sunshine and storm—in that attend to its physiological wants, then we might have reason to expect a bountiful reward. A knowledge of what a tree requires enables its possessor to make it perfect. A knowledge of the human organism and its requisites would enable us to make life what our Creator designed it should be—an honour and glory unto Himself. Man is only capable of the highest and the greatest amount of good when he is in the most perfect state of health. Therefore, body and mind should be so blended together that they would form the happy, wise, virtuous, and noble being that man ought to be. Through what medium, then, is this most desirable end to be attained? Observation and experience point us to the school-master. Is it not they, who have raised us from the dark depths of ignorance, tyranny, and persecution of former ages above the level of all civilized nations? Is it not to them we owe our rank as the first great power of this earth? Is it not to them that we must look for the further advancement and perfection of our race? They must become awake to the cause of causes. They must have

an eye to the foundations that they would build upon. They should be qualified to teach that the science of all sciences is the science of human life. That, in connection with the branches now taught, would entitle them to the gratitude of all mankind, and they might then, in the fullest sense of the word, be called the greatest benefactors of their race.

2. EDUCATION A PROGRESSIVE WORK.

Everything in nature comes forth frail and weak, it goes onward gaining strength at every step until it arrives at completeness, when it gradually, but with quick steps, fades and dies. Although this is true of all natural substances, it is not so with regard to the mind of man; we frequently speak of second childhood, our great dramatist says that the last age of man is imbecility, but he pictures what is rather than what *may* be; the mind may still go on with vigor, until, the body, becoming too frail any longer to buffet with the cares and roughness of the world, returns to its kindred dust when the mind soars away to the spirit land, to contemplate in reality the mighty scenes and subjects it had conceived a faint idea of here.

The mind then is the only thing which progresses without stop until it arrive at perfection in the presence of Him who breathed into man the breath of life, so that he became a living soul. If such is the case, then must education, which is the training of the mind throughout the whole course of our life, be a peculiarly progressive work. It is a too common error that education is commenced and finished at school, it commences in the cradle and is not completed this side of the grave.

All who are engaged in the training of the young, whether it be in the mother's arms, in the family cradle, or in the public school room, should bear this fact in memory, should make all their training subservient thereto. If mothers would implant in the breasts of their children, love for God, veneration for the aged, obedience and truthfulness; if fathers would inculcate energy, perseverance, industry, and love of order, their progress would be sure until they entered school ready to receive instruction at the hands of their teacher, who, if he would rear the tender mind, must be fully alive to the fact that he is but training that which already exists, that he has a living mind not only to instruct but to educate; he should therefore commence from the first lesson and carefully exercise the perceptive faculties, preparatory to appealing to the reason. The minds of young children rapidly take in anything they see, that which appeals to the sense is eagerly snapped up, and may be made quite comprehensible to them; to this end short, simple object lessons should be given, which may be rendered somewhat more difficult, may be made to call for more thought as they advance, but the perceptive faculties must be fully exercised ere the reflective or reasoning powers are called out to any extent. If the teacher would make the education of his scholar what it really is, a progressive work, he must ever be careful to make one study but a stepping-stone to another, to so exercise the mind that it shall be continually gaining strength, and thus able to engage in fresh studies which call for more thought and more active reasoning. He should lead his scholar on by easy gradations that they feel they are gradually progressing, and without any extraordinary effort are surely advancing with certain steps to the temple of knowledge, the road to which will thus appear to them to be far less rough and laborous, far more pleasant than it is generally said to be.

To what extent the mind may be educated it is impossible to say, but certain it is, that it may be permanently and seriously injured by injudicious teachings by attempting to force upon it that which it is not prepared to receive, as the ground must be ploughed and cultivated in order that it shall be fit to receive seed, so must the mind be carefully prepared for any study before it can be successfully engaged in. Perhaps one of the greatest errors in teaching is to push the scholar forward into studies they are unprepared for, unable to understand, and which consequently become a mere drudgery hateful to the learner, tedious and uninteresting to the teacher; but if the mind be carefully trained and judiciously educated nothing will give greater pleasure to the teacher than to watch the steady progress made by his scholars.

But it is not only in the school room, not only by the teacher (although he must lay the foundation, must strenuously and vigorously impress the fact upon the minds of the scholars) that the progressive nature of education must be borne in mind and acted upon. It is greatly to be deplored that many, very many, leave school thinking their education is completed, that they no longer need text books, no longer have any necessity for pursuing their studies; so far from such being the case their study at school is but the foundation upon which they, while engaged in the active duties of life, must erect the superstructure, the teacher's work is generally the preparing of the ground, making it ready to receive the seed, the fruit of which will be reaped in the future, but though

the ground may have been ever so carefully and thoroughly prepared it requires constant care and attention, together with judicious strengthening, that the fruit may be of such a nature as will enable us to fulfil the duties that have been assigned us by the great Creator. It is the duty of all to lose no opportunity of improving the mind, of adding to its strength and store of knowledge; if all whether in the school room, in the office, store, or on the farm, would recognize the truly progressive nature of education, would recognize and act upon the fact that the mind is capable of increasing in power, of acquiring fresh additions to its stores of learning so long as it animates the body, then would man be more prosperous and happy, then would man more fully show forth the glory of Him in whose image he is made, for education is the handmaid of true religion, and it enables us more fully and truly to comprehend the might, majesty and power, the love, mercy and justice of the Almighty, for it opens to us boundless regions of thought in which the mind may contemplate, though faintly and indistinctly, that mighty power which could create universe upon universe, and that boundless love which prompted Him to give His only begotten Son that man, sinful man, might not receive the eternal punishment he so justly merited.

L. E., Esquising, C.W.*

III. Papers on Education in other Countries.

THE EDUCATIONAL SYSTEM IN GERMANY, AND ITS ADVANTAGES.

BY CAPTAIN BOSCAWEN IBBOTSON, F.R.S.

(Concluded.)

The progressive classes of schools in Germany are as follows:

1st. *Krippe* or *Klein kinder anstalten* institutions for the reception of infants.

2d. "*Elementary Schools*," from which they branch out to either the

- (A) *Gymnasium*, or Latin school, and from thence to the university for the learned professions;
- (B) Or to the *High School*, and from that to either of the following classes or schools:
 - (a) *Fach Schule*, or an industrial or mechanical and physical school for artisans, &c.;
 - (b) Or to the *normal* or *teachers'* schools;
 - (c) Or to the *Polytechnische Schule*, which is in fact in some places, as, for example, in Berlin, called a *Gewerbe*, or industrial school; but this term *gewerbe* varies, as the *Gewerbe* School of Carlsruhe is in fact a journeyman and apprentice school (*Fortbildungs Anstalt*.)

The general opinion in Germany is, that the infant's education is one of the principal points to be seen after; therefore the infant-schools are particularly attended to. Their regulations are various; some are free, and supported by voluntary contributions; to others the parents pay a small sum for their maintenance, according to their means. In some places, as at Dresden, babies are admitted of a few months old; in others they are admitted from three years of age to six. This appears to be the general system. In some towns, as in Munich, for example, they are not allowed to have any instruction, the supposition being that early instruction weakens the intellect. In other towns—as, for example, Augsburg—I have seen a child six years of age make a very tolerable pencil-drawing, and also show a proficiency in reading and spelling. Their childish amusements are always instructive, accompanied with cheerful singing, with which they take great pains. Every thing is done to please them. The system throughout seems to be to make school a pleasure to them from their earliest infancy, and to make it a grief to them to leave it.

Prof. W. Eisenlohr, who was the first to introduce *Gewerbe* or industrial schools into Mannheim, told me that at first he had some difficulty to get the children to attend; but after two or three years, by giving prizes and ensuring them employment if deserving, the pupils became so numerous, that the state was obliged to buy the schools, and establish them on a large scale.

In some places they have "*Fortbildungs Anstalten*," or schools always warm in winter, for workmen, journeymen, and apprentices to enter when their leisure will allow them. The *Handwerk Schule* of Hanover is one of this sort.

In some parts of Germany, particularly in Bavaria, they have practical agricultural schools, forming a part of the polytechnic and industrial schools, and under government. The best is at Hohenheim, near Munich. It is in a royal castle, with plenty of land, and admirably conducted. One great advantage of these progres-

* Another paper by "L. E." will be given in our next No.—*Ed. J. E.*

sive schools being linked together is, that the pupils of both agricultural and industrial pursuits get acquainted with each other at the high school, and thereby is avoided that jealous feeling which unhappily exists in general between the agriculturist and the mechanic.

There is a gymnastic ground attached to each school. Singing forms also a part of the national education, and particular attention is paid to free-hand, lineal, and geometric drawing.

In Germany the government always tries to keep up a spirit of emulation, by getting novelties in the ways of teaching into their schools, which prevents them from remaining the least in the background. For this purpose they have, in addition to their home inspectors of schools, a travelling inspector of schools, who visits all the educational establishments in foreign countries, and reports, not only on any new method of education, new school-books, &c., but also new methods of diagrams, explanatory mechanical apparatus, &c. The advantage of this plan is too self-evident to need any further explanation.

As a great part of the plan of education in Germany was derived from one source, I will briefly explain to you the rise and progress of one of their largest and oldest establishments, and show what the energy of one man can do when well applied. It is the Orphan School in Halle.

The Orphan School in Halle.—This institution was established by August Herman Franke, from 1694 to 1721, at which period it was the custom of the poorer classes to congregate near the houses of the rich to receive food, &c. Franke also, as clergyman of the town of Glaucha, gave his bread to them; but he took the opportunity, at the same time, to try to give them instruction. He allowed also the parents and the children to enter his house, and he asked questions of the children relating to their catechism, and allowed the parents to listen; kept them a quarter of an hour, and finished with a prayer, and then gave them food. This took place every Thursday. The ignorance he found was astounding, and he hardly knew in what manner he should begin to ameliorate it. He began by giving money to the children for their schooling; but that did not answer, as he found that the money was sometimes spent for other purposes, and if applied for schooling, that they still gained but little instruction. He then bought a begging-box, and put it in the hands of some well-thinking students, and that produced about 1s. 6d. per week. In the year 1695 he placed a similar box in his room, with an appropriate inscription upon it. It had this good effect, that a Madame C. S. Knorin left about 13s. 6d. in the box. When Franke saw that sum, he said: "From this I will establish a poor-school." I will not follow up in detail all the progress he had made, step by step, in his laudable exertions, but will merely state that in twenty-seven years, viz. in 1721, he not only founded his poor school, but also founded the following institutions:

1. An Orphan Asylum, to which belonged 55 boys; in a Gymnasium, or Latin school, for professions, 45 ditto; in Gewerbe, an industrial school for artisans, 25 girls. With 17 teachers. This was a free school.
2. Seeing the necessity for a particular and separate education for teachers in schools, he established what is here called a normal or training school. Both their education and board was free. He had 75 scholars.
3. An extra free table or dinner, partly for very poor scholars, and partly for such as later in life might become teachers. He fed 64 persons daily.
4. Eight school-classes. The Latin school had, besides the 55 orphans before mentioned, 103 scholars. In the other German school, a boys' and girls' school, besides the 70 orphans, he had 418 scholars out of the town, and he had altogether, besides the inspectors, 67 teachers.
5. The Royal Pädagogium, for boys of the middle and higher classes. He had 70 scholars, 12 upper teachers, and 5 under ones.
6. A book and publishing trade, in which was employed one principal, one servant, and one apprentice.
7. A chemical laboratory, with a book-keeper, 4 laboratory assistants, 2 journeymen, and 2 apprentices.
8. A widow's asylum for 4 widows.
9. Also an asylum for the poor of his parish (Glaucha), and for travelling beggars.
10. The Gynæceum, or female seminary.

Herman Franke died in 1727, in his 65th year.

At the time of my visit to this institution, then under the direction of Dr. Kramer, there were 3140 students.

The renowned Rauhenhaus, or reformatory school, at Horn, near Hamburg, owned its existence to similar circumstances as the latter. It was established in 1832-1833.

It was first started by a society called the *Männliche Besuchs Verein*, a society still existing, whose object was to seek out persons and families in distress, and afford them relief. The idea struck

them of the necessity of a reformatory school for juvenile offenders, but as this society was composed of persons with very small pecuniary means, the difficulty was to procure the necessary funds to establish it. Shortly after they had met together and started this subject among themselves, a person, almost a stranger, entered into the office of one of the associates of this society, and said he wished to place in his hands a sum of about 15l. (100 thalers) for charitable purposes, but that he was desirous that it should be employed in the forming of some religious institution for the benefit of mankind. The associate was astounded, as it seemed that a kind providence had sent this sum on purpose to forward their good work. They then thought of making their plan public, and for that purpose laid their scheme before a man well known for his zeal in all matters relating to the poor of Hamburg. He published the receipt of the above sum, and the name of the Rettungs Haus, or Reformatory School, was for the first time published.

A citizen of Hamburg died, and amongst many other legacies, left about 1060l. (17,500 marks) to forward this new institution. The society then thought of hiring a house to start their plan, and an article in a country journal (*Bergdorfer Boten*) gained many subscriptions: one lady sent about 6l. (100 marks); a servant-girl and a shoemaker's apprentice sent all their savings. Dr. Wiegern, the present director, of the establishment, called on the late Syndicus Lieveking to ask his advice on the subject, and he gave to the society an acre of land in Horn on which to form their school, and a house which from time immemorial had been called the "Rauhe Haus;" thus is derived the name of the institution. Dr. Wiegern and his mother entered upon the premises in 1833, and directly received their first three boys. At the end of the first year they had twenty boys. Their plan is to put no perceptible restraint upon the boys, and no locks and keys are allowed. Each twelve form what they call a family. Each began to learn a trade. They built their own houses, made their furniture, clothes, &c. The establishment so increased by good management that in 1853 they had 20 houses, 41 acres of land, 26 acres of which was their own freehold. Each family is governed by a so-called brother, representing the elder brother of a family. They are all young men of exemplary character, and all get good situations. Out of 158 that have been educated there, 113 have been well placed. Taking the average of 200 children, the boys take a little more than four years to reclaim them; the girls five years and a half. And the result of the amendment is as follows: 200 placed in situations—23, viz. 17 boys and 6 girls, irreclaimable; 22, viz. 11 boys and 11 girls, served badly; 10, viz. 9 boys and 1 girl, were tolerable; and 145, viz. 124 boys and 21 girls, turned out good. There are about 24 of these establishments in Germany.—*Nat. Soc. Monthly Paper.*

2. A RAGGED SCHOOL IN CAIRO.

"Teacher! Zanuba is beating me." "Teacher! Sittaty is pinching my arm." "Oh, teacher, Fatmeh pushed me down; pray beat her." "I cannot get an alphabet; they have taken mine away." "Hear my spelling, teacher; I can say it very nicely." "No don't hear her, teacher; hear me first." "Look at Adeela, teacher; she is striking my sister: I will not have my sister struck." "She tore the book, and ought to be beaten." "Oh, teacher, do something to my finger; it is so bad! Then, when, one after another, all had been attended to, a fit of joy succeeded the fit of quarrelling, and two or three would fling down the cards and exclaim, "I am so glad you are come again! I love you much!" "Then show me your love by being good and quiet," was the reply. "I must have order." "Yes, yes; order, order!" echoes a lively officious little lass of ten or eleven, snatching up a ruler and laying about her vigorously, crying, "Order, order, you children! stand in order!" When the stick is taken from her, and the little one she has tapped so violently as to make them cry are pacified, another trouble begins—the idle ones fancy they are hungry, and out of some pocket in their ragged garments come a green onion, a piece of sticky date-paste, a pickled turnip, or a bit of sugar-cane, which have to be confiscated till "recess," as are apples and lollipops in our English schools; and with some difficulty the disorderly crew are induced to wait till the muezzin has announced from the neighbouring mosque that it is the hour of noon.—*Miss Whately's "More about Ragged Life in Egypt."*

IV. Papers on Practical Education.

1. SEVEN RULES FOR TEACHING.

1. Never attempt to teach what you do not perfectly understand.
2. Never tell a child what you can make that child tell you.
3. Never give a piece of information unless you call for it again.
4. Never use a hard word when an easy one will answer.

5. Never make a rule that you do not rigidly enforce.
6. Never give an unnecessary command.
7. Never permit a child to remain in the class without something to do.

Comment is unnecessary. These seven rules are the embodiment of the theory of teaching. Let them be graven upon the memory of every teacher.—*Educational Herald*.

2. THE SCHOOLMASTER'S ENCOURAGEMENTS.

But, after all, the highest source of encouragement to the Schoolmaster, under his arduous and responsible labours, is not of the earth, earthy. Your hindrances and difficulties lie upon the surface; but your chief encouragements lie remote from observation. They cannot be appreciated, and they cannot justly be appropriated, by the teacher who looks only to the present—who has no eye to the great future. It is a source of no little satisfaction to reflect that you are the pioneers of civilisation, that you are instrumental in improving the general tone of manners and feeling among the lower ranks of society; but the teacher who takes a right view of his work will look upon the children committed to his charge, not only as the future fathers and mothers of a new generation, but also as heirs of an immortal destiny, and his aim will be not simply to fit them to play their part well in this life present, but to instil into their minds, at an age when they are most susceptible of good impressions, those seeds of piety and religion which may bear fruit unto life eternal. And here, as in the matter of discipline, the Schoolmaster may, and ought, to act as a father towards his children. As the discipline of home is often wanting in judgment and discretion, often, alas, in love, so is the example in a religious point of view, in many cases, sadly defective, if not positively injurious. And if you are sometimes discouraged by the reflection that the good principles inculcated in the school are, in some cases, made of none effect by the evil example of home, or by the apathy and heedlessness of the children themselves, you may yet be hopeful that the seed cast upon the waters will be found after many days.

We, who visit the sick in their hour of felt spiritual need, can bear witness to the very great advantage it is to have had a foundation of sound religious instruction laid in early youth. The instruction conveyed may lie dormant for years, yet in many cases it will come back to the mind in a most wonderful manner, in all its freshness, with the superadded power of a new insight into its deep and heavenly meaning. The lessons of the school, which seem to have been wasted, like seed cast upon the stony ground, are stored up in the memory, and when the soil of the heart is softened by the trials and afflictions of maturer life, they take root and bring forth fruit. And in the hope of being instrumental in sowing this good seed in many youthful hearts, consists the highest and greatest encouragement of the diligent and conscientious Schoolmaster.

And here let me say, if you will pardon me for being somewhat didactic, and for trespassing, I fear, too far upon the time allotted for this meeting, that the effect of religious instruction upon the minds of the young must, humanly speaking, depend, not only upon the manner and spirit in which it is conveyed, but above all upon the personal character and example of the teacher. Children almost instinctively adopt the tone and sentiments of their elders, and especially must this be so in the case of their appointed instructors. And if it be said that, under the new system, the national Schoolmaster can hardly be expected to devote so much time as formerly to Bible instruction, inasmuch as it does not pay in examination, I would reply that the religious influence of which I am speaking does not depend upon mere knowledge of facts, nor can it properly be made the subject of examination. A knowledge of Bible facts, and, to a certain extent, of Gospel doctrines, is doubtless highly necessary; but the religious influence of a Master does not depend so much upon the amount of Biblical knowledge which he imparts, as upon the general tone of all his teaching. It is possible for a Schoolmaster, yea, it is his duty, to teach common things religiously, not, I mean, by interspersing the ordinary lessons of the school on all occasions with remarks of a religious kind, but by making children perceive, in a way to be felt rather than defined, that religion is the one thing needful, by that subtle and yet well understood influence which springs spontaneously from a mind that is really imbued with the love of God, and is under the influence of His Holy Spirit. If we aim at too much in the religious training of children, we overshoot the mark, and run the risk of giving them a distaste for religion. They should be led to feel that it is incompatible neither with cheerfulness nor with manliness, and that godliness has the promise of the life that now is, as well as of that which is to come. Let the teacher seek to train his pupils in habits of obedience, reverence, and truthfulness; let him seek to convince them that these things are noble and lovely in themselves,

as well as of good report; let him conduct the ordinary work of the school on the principles which I have endeavoured to point out, and he will find his greatest encouragements in the testimony of a good conscience, and in the sure and certain hope that "his labour will not be in vain in the Lord."—*Rev. G. Jennings*.

3. ENCOURAGEMENT TO YOUNG TEACHERS.

Should any of you be called to the important trust of imparting instruction to small children, do not, I beseech you, look upon it with dread, as too many have; rather with delight, only fearing its immense responsibility. There is scope enough in the occupation to engage your richest talents, brightest fancy, keenest wits, and profoundest thoughts; especially should you answer all their questions, which you should always encourage them to ask, illustrative of the subject before them. It may require at times your most active ingenuity to occupy their thoughts and enkindle an enthusiasm; but when it is once enkindled, you will love nothing better than to watch the expanding germ, unfolding like the rose-bud. It will become a joy to you then to witness the simplicity manifested in their manner of receiving truth, and their artless way of imparting it. Besides there is a true grandeur in that mysterious growth and development of mind seen nowhere else so pure and plastic as with the simple hearted child.—*Wisconsin Jour. B.*

4. EIGHT METHODS OF SPELLING.

There are various methods to be used in putting out words and in spelling them.

1. The teacher gives a word to each scholar in turn, to be spelled orally. This is a common method, and when well used is a good one.
 2. The first word in the lesson is given out by the teacher; the pupil repeats the word, spells it, and then goes on to spell the rest of the words in the lesson, in their order, without any further help from the teacher. The omission or the misplacing of any word is considered a mistake. The next pupil spells all the words in the same way, and so on through the class. This, on the whole, is an admirable method for young children; it disciplines the memory, promotes carefulness and accuracy, and accomplishes a great deal of work in a given time.
 3. This is a slight modification of the preceding method, especially useful in a review. One scholar spells the first word, the next the second, and so on.
 4. A dictation exercise. The teacher dictates a short sentence; the pupil repeats it, and then pronounces and spells the more difficult words, one by one. In this way the words are presented *in motion*, as French would say, that is, in their connection, as they are used in writing and speaking; though many honest words might well feel ashamed at finding themselves in such uncouth sentences as they often do.
 5. A modification of the fourth method. The pupil, as the teacher gives him permission, rises at his desk, or steps forward so as to face the class; then calling upon some one by name, he dictates a sentence; this is to be repeated, and the difficult words in it spelled as before. Children are very generally interested in this exercise, especially when they are directed to introduce into their sentences words pronounced alike, but with different spelling and meaning, as: "He pries into every corner in search of the prize."
 6. Choose sides and then continue spelling, either until all the pupils are ranged on one side, or as long as the time will permit. This method of conducting a spelling exercise, when wisely used, is a very good one, and decidedly so when you wish to have your scholars interested in a long review. The laws which govern the course of proceedings, when sides are chosen, are too well and generally known to be repeated here.
- Thus far we have used oral exercises; let them now be wholly or in part written.
7. The method of writing words in a blank book, or on slate or blackboard, as described in a previous article.
 8. A different word is given to each child to write on the blackboard. When the teacher, having gone through the class once in this way, putting out words, comes round again to the head of the class, the first pupil spells aloud the word he has written; another is assigned him; the same with the next pupil, and so on. When the class is not very large, and the teacher and scholars are all prompt and wide awake, this is a very good method.—*R. I. Schoolmaster*.

"Books are a part of man's prerogative;
In formal ink they thought and voices hold;
That we to them our solitude may give,
And make time present, travel that of old."—*Anon.*

V. Papers on Literary Subjects.

1. THE IMPROVEMENT OF OPPORTUNITIES.

From "Caxtoniana," a Series of Essays, by SIR E. BULWER LYTTON, BART.

Learn all you possibly can, and when you have learned that all, I repeat it, you will never converse with any man of sound brain who does not know something worth knowing, better than yourself.

Sir Walter Scott, in a letter to Joanna Baillie, says, "I never heard of a stranger that utterly baffled all efforts to engage him in conversation except one, whom an acquaintance of mine met in a stage-coach. My friend, who piqued himself on his talents for conversation, assailed this tortoise on all hands, but in vain; and at length descended to expostulation. 'I have talked to you, my friend, on all the ruling subjects,—literature, farming, merchandise, gaming, game-laws, horse races, suits at law, politics, and swindling, and blasphemy, and philosophy,—is there any one subject that you will favour me by opening upon?' The wight writhed his countenance into a grin: 'Sir,' said he, 'can you say anything clever about bend-leather?'"

"There," says Sir Walter Scott, "I own I should have been as much nonplused as my acquaintance."

I venture to doubt that modest assertion. Sir Walter would have perceived that he had not there to teach, but to learn; and I am quite certain that before the end of his journey, he would have extracted from the traveller all that the traveller could have told him about bend-leather. And, if Sir Walter Scott had learned all about bend-leather, what then? What then? It would have been sure to have come out in one of his books, suggested some felicity in humour, or sported into some playful novelty in character, which would have made the whole reading world merrier and wiser.

It is not knowledge that constitutes the difference between the man who adds to the rites and embellishments of life, and the man who leaves the world just as he found it. The difference between the two consists in the reproduction of knowledge,—in the degree to which the mind appropriates, tests, experimentalises on, all the waifs of ideas which are borne to it from the minds of others.

A certain nobleman, very proud of the extent and beauty of his pleasure-grounds, chancing one day to call on a small squire, whose garden might cover about half an acre, was greatly struck with the brilliant colours of his neighbour's flowers. "Ay," my lord, "the flowers are well enough," said the squire, "but permit me to show you my grapes." Conducted into an old-fashioned little greenhouse, which served as a vinery, my lord gazed with mortification and envy on grapes twice as fine as his own. "My dear friend," said my lord, "you have a jewel of a gardener, let me see him." The gardener was called—the single gardener—a simple looking young man, under thirty. "Accept my compliments on your flower-beds and your grapes," said my lord, "and tell me, if you can, why your flowers are so much brighter than mine, and your grapes so much finer? you must have studied horticulture profoundly." "Please your lordship," said the man, "I have not had the advantage of much education, I ben't no scholar; but as to the flowers and the vines, the secret as to treating them just came to me, you see, by chance."

"By chance? Explain."

"Well, my lord, three years ago, master sent me to Lunnon on business of his'n, and it came on to rain, and I took shelter in a mews, you see."

"Yes; you took shelter in a mews—what then?"

"And there were two gentlemen taking shelter too, and they were talking to each other about charcoal."

"About charcoal? Go on."

"And one said that it had done a deal o' good in many cases of sickness, and specially in the first stage of the cholera, and I took a note on my mind of that, because we'd had the cholera in our village the year afore. And I guessed the two gentlemen were doctors, and knew what they were talking about."

"I daresay they did; but flowers and vines do not have the cholera, do they?"

"No, my lord, but they have complaints of their own; and one of the gentlemen went on to say that charcoal had a special good effect upon all vegetable life, and told a story of a vinedresser, in Germany I think, who had made a very sickly poor vineyard one of the best in all those parts, simply by charcoal dressings. So I naturally pricked up my ears at that, for our vines were in so bad a way that master thought of doing away with them altogether. 'Ay,' said the other gentleman, 'and see how a little sprinkling of charcoal will brighten up a flower-bed.'"

"The rain was now over, and the gentlemen left the mews, and I thought,—Well, but before I try the charcoal on my plants, I'd

best make some enquiry of them as ar'nt doctors, but gardeners. So I went to our nurseryman, who has a deal of book-learning, and I asked him if he'd ever heard of charcoal dressing being good for vines, and he said he had read in a book that it was so, but had never tried it. He kindly lent me the book, which was translated from some forren one, and after I had picked out of it all I could, I tried the charcoal in the way the book told me to try it; and that's how the grapes and the flower-beds came to please you, my lord. It was a lucky chance that ever I heard those gentlemen talking in the mews, please your lordship."

"Chance happens to all," answered the peer sentimentally; "but to turn chance to good account, is the gift of few."

His lordship, returning home, gazed gloomily on the hues of his vast parterres; he visited his vineries, and scowled at the clusters; he summoned his head gardener, a gentleman of the highest repute for science, and who never spoke of a cowslip except by its name in Latin. To this learned personage my lord communicated what he had heard and seen of the benignant effects of charcoal, and produced in proof, a magnificent bunch of grapes, which he had brought from the squire's.

"My lord," said the gardener, scarcely glancing at the grapes, "Squire—'s gardener must be a poor ignorant creature to fancy he had discovered a secret in what is so very well-known to every professed horticulturist. Professor Liebig, my lord, has treated of the good effect of charcoal dressings to vines especially; and it is to be explained on these chemical principles." Therewith, the wise man entered into a profound dissertation, of which his lordship did not understand a word.

"Well then," said the peer, cutting short the harangue, "since you know so well that charcoal dressing is good for vines and flowers, have you ever tried it on mine?"

"I can't say I have my lord; it did not chance to come into my head."

"Nay," replied the peer, "chance put it into your head, but thought never took it out of your head."

My lord, who if he did not know much about horticulture, was a good judge of mankind, dismissed the man of learning, and with many apologies for seeking to rob his neighbour of such a treasure, asked the squire to transfer to his service the man of genius. The squire, who thought that now the charcoal had been once discovered, any new gardener could apply it as well as the old one, was too happy to oblige my lord, and advance the fortunes of an honest fellow, born in his village. His lordship knew very well that a man who makes good use of the ideas received through chance, will make a still better use of ideas received through study. He took some kind, but not altogether unselfish, pains with the training and education of the man of genius whom he had gained to his service. The man is now my lord's head forester and bailiff. The woods thrive under him; the farm pays largely. He and my lord are both the richer for the connection between them. He is not the less practically painstaking, though he no longer says "ben't," and "his'n;" nor the less felicitously theoretical, though he no longer ascribes a successful experiment to chance.

2. EDUCATIONAL LITERATURE FOR TEACHERS.

Of all the agencies yet employed to elevate the business of teaching, a live educational literature is unquestionably the most potent. It is, indeed, the life of other agencies. The present condition and substantial success of educational effort are largely due to the spirit of healthy progress infused by the press through all classes of teachers.

During the past fifty years, numerous educational works, both of a standard and of a periodical character, have been widely circulated. A few of these works have inaugurated the most important reforms in education; laying, indeed the foundation of new educational systems. There are, indeed, very few teachers who have attained to eminence in their profession, who are not greatly indebted to the ideas, suggestions, and methods, which they have gleaned from educational works.

And yet strange as it may seem, there are thousands of teachers in our schools, who have never read a page on the subject of teaching; some, indeed, who are not able to name a single educational work that has ever been published. It need not be added, that he who places a practical treatise or periodical in the hands of such teachers, does the cause of education important service.—*Ohio School Commissioner's Report.*

3. ENCOURAGING SCHOLARS TO READ AT HOME.

SIR,—By your kind permission, I will bring before my fellow-teachers a scheme for assisting our scholars to read at home, which I have never seen in print, although perhaps some schools may already have it in operation.

A suggestion was offered in your *Monthly Paper* some months ago, that scholars should be encouraged to buy periodicals; but this will only be attended by a very limited success. In order, however, to secure reading at home, I have formed in my school, with the sanction and best wishes of my incumbent, a "Home Reading Society," the members of which must belong to either of the four upper classes, and pay a halfpenny per month. With the money so paid I purchase monthly periodicals, viz., *Pleasant Hours*, *Missionary Gleaner*, *Sunshine*, *Band of Hope*, and *Children's Friend*. These the members in turn take home to read, being allowed about two days for each number.

About sixteen members will quite pay expenses of one set of papers, and any schools could raise this number. I commenced with two set of periodicals and thirty-three members; this month I have forty-five members and three sets of periodicals. "Home Reading Society" is certainly a grand title for so small an undertaking; but my girls and boys are quite delighted at being members of the "Society," and so I am pleased I adopted it. In order to be fully successful, it will be necessary to speak occasionally to the upper classes on the benefit attending such home reading, and to show the cheapness of membership. The pictures, too, should be exhibited sometimes, and a story read from one of the papers.

It is impossible to estimate the good such a society may do even to the scholar's reading; but in addition to this there is the cultivation of the love of the beautiful, in setting before the family at home such splendid engravings as were in *Sunshine* of last month, and are in the *Children's Friend* and *Band of Hope* of this. There is the formation of a strong bond of union between home and the school; there is the inducement it affords to keep the family within doors of an evening; but above all there is the hope we may fairly, if prayerfully, entertain, that God will be pleased to employ it to His glory and to the good of the Church.—I am, &c., W.—[In *Eng. Nat. Soc. Monthly Paper*.

4. READING ALOUD IN THE FAMILY.

Books and periodicals should be angels in every household. They are urns to bring us the golden fruits of thought and experience from other minds and other lands. As the fruits of the trees of the earth's soil are most enjoyed around the family board, so should those that mature upon mental and moral boughs be gathered around by the entire household. No home exercise could be more appropriate and pleasing than for one member to read aloud for the benefit of all. An author's ideas are energized by the confidence and love of the tender family affections, and every heart is open to the truth like the unfolded rose to receive the gathering dew. The ties of love between parents and children and brothers and sisters, are thus cemented yet more and more, and varied charms and pleasures are constantly opened through this medium to make a home a very paradise. If parents would introduce this exercise in their families, they would soon see the levity and giddiness that make up the conversation of too many circles giving way to refinement and chaste dignity. Read to your children, and encourage them to read to you, instead of reading your papers and books in silence, and in silence laying them away.—*West. Recorder*.

5. A FARMERS' LIBRARY.

In conversing with an intelligent farmer a short time since, he told us that he attributed much of his success to his carefully reading upon the different departments of agriculture. In addition to a few reliable agricultural journals, he said he had collected what he calls his "Farmer's Library." He made it a point to understand the why and wherefore of the processes he was putting into practice. And he was correct. Farmers should read—should study more than they do. Every farmer should have a library. It need not be large or expensive, nor need it be purchased all at once. The reading of it need not detract one hour from the important labour of the field. But we insist that every farmer should have some scientific knowledge of the various operations he is daily performing, both for his own enjoyment and profit, and to be able to give a reason for everything he does on his land. His children should be taught the philosophy of agriculture more or less thoroughly, that they may be attached to the calling, and may make improvement on it.—*Clinton Co. Republican*.

VI. Papers on Scientific Subjects.

1. SCRAPS OF SCIENCE.

One of the most wonderful achievements of astronomers is the weighing of the bodies comprising the solar system. The mass of the sun is 359,551 times greater than that of the earth and moon, and 700 times greater than that of the united masses of all the planets.

A flash of lightning on the earth would be visible on the moon in a second and a quarter; on the sun in eight minutes; on Jupiter (when furthest from us) in twenty-five minutes; on Uranus in two hours; on Neptune in four hours and a quarter; on the star Vega, of the first magnitude, in 4,000 years; yet such stars are visible through the telescope!

La Place, the great French astronomer, says,—“I have ascertained that between the heavenly bodies all attractions are transmitted with a velocity which, if it be not infinite, surpasses several thousand times the velocity of light.” His annotator estimates that speed as being eight millions of times greater than that of light.

The circumference of the earth is 25,000 miles. A train travelling incessantly night and day, at the rate of twenty-five miles an hour, would require six weeks to go round it. A tunnel through the earth, from England to New Zealand, would be nearly 8,000 miles long.

The barking of dogs is an acquired hereditary instinct, supposed to have originated in an attempt to imitate the human voice. Wild dogs, and domestic breeds which have become wild, never bark, but only howl. Cats, which so disturb the inhabitants of civilized countries by their midnight "caterwaul," are, in their wild state in South America, quite silent.

The dark races of men have less nervous sensibility than the whites. They are not subject to nervous disease. They sleep sound when sick, nor does any mental disturbance keep them awake. They bear surgical operations much better than the whites.

A certain species of fungus has been known to attain the size of a gourd in one night; and it is calculated that the cellulose of which it is composed must amount to forty-seven thousand millions. If it grows in twelve hours, this would give four thousand millions per hour, or more than six millions per minute.

2. POINTS OF COMPASS—LINES OF THE MAP.

It is important that all students in geography understand well and thoroughly the points of compass, and the meaning of the lines of latitude and longitude, and the great circles. Teach them that latitude is not imaginary, but evidence on the map of north and south, and all the evidence we have. How common it is to hear Cape Farewell described as the S.E. point of Greenland, when it is the southern point, and that portion of Asia usually found on maps of the Western Hemisphere as North-West of America, when it is West.

Teach a thorough knowledge of these lines, and why the curve is so much greater near the poles than near the equator. Teach also the use of the tropic and polar circles. Teach what phenomena occur annually there in the great economy of nature. Your pupils will relish such a lesson, and feel as if getting pay for their work—a very desirable feeling.

Ask your advanced classes in Geography, if they were standing at either of the poles which way from them would be north, south, east and west. Let them study a few days, and if a correct answer is not given, illustrate with the globe that at the north pole there is no north, and at the south pole there is no south, and that east and west is a circle passing around their feet—in other words, that at the north pole it is all south whichever way they turn, and vice versa. Feed your class upon some of the many wonders of the world—its physical facts, and less upon stale tortured definitions.

"Blame the culture, not the soil." Teach the use of all you introduce, and that nothing imaginary is connected with geography, unless false.—*W. H. G., in Wisconsin Journal of Education*.

3. THE DRAWING TALENT IN CHILDREN.

"Please may I make pictures on my slate: I've learned all my lessons!" Teacher, did you never hear that inquiry from the lips of a pupil? Or, perhaps, in passing around the room, your attention has been arrested by the slate of some pupil filled with curious drawings. Did you never yourself, in youthful days, draw houses with partitions plainly visible on the outside, with chairs and sofas of doubtful strength filling the rooms; or imitate Squire Jones' long nose in an elaborate profile? What does this picture-love in children indicate? and shall its expression on slate and paper be allowed and cultivated, is the inquiry I would seek to make. The imagination in this, as in other respects, has been too much neglected in children. Picture drawing, if allowed at all, has been merely to occupy the attention of the smallest of the restless fingers. Let the child draw upon his slate or paper, What? Dogs with three legs, uncouth imitations of the human face and form, and trees which are any thing but graceful? Shall the time of the pupils be wasted in such nonsense? No, not this; but is there no need of training children in the common schools in the first principles of drawing? Teach them to make a straight line, and how these straight lines may be combined to form objects known and

familiar to them. From this, proceeding to curves and combinations of these, tell them that all the beautiful flowers, the houses, the children's faces, are but combinations of these simple lines and curves. What child will not be interested? And not only for the purpose of interest should the subject receive attention in our schools. As a means of improvement to the child, in cultivating accuracy of sight, as tending to develop imagination, and for very many kindred reasons it should not thus suffer neglect. It has been too long confined to the "finishing" of boarding-school misses, who showed to admiring friends, landscapes and crayon heads, no small part of which was the work of the teacher, but adding to the accomplishments of the individual. The science in its simplicity has been overlooked, first principles have been neglected, children have yawned and whispered, dropped wearily asleep in the dull school-room, because the teacher has forbidden, or knew not how to teach the making of pictures. Shall this continue to be? Can we not help in this to bring the science down into the every-day affairs of the school-room, or, rather, to bring the minds of little children up through varied lines and curves, into a higher plane of culture and sphere of action.—C, in *Iowa School Journal*.

4. AN OUNCE AND A TON WEIGHT.

An ounce weight and a ton weight of iron will fall down a pit with equal speed and in equal time. Until about three hundred years ago, all the learned men in the world disbelieved and denied it. Galileo, an Italian, taught the contrary to the popular belief. The University of Pisa challenged him to the proof. The leaning tower of that city was just the place for such an experiment. Two balls were obtained and weighed, and one was found to be exactly double the weight of the other. Both were taken to the top. All Pisa looked on, and crowds of dignitaries were confident that young Galileo, then obscure and despised, but honoured and immortalized now, would be proved to be in error. The two balls were dropped at the same instant. Old theory, and all the world, said that the large ball, being twice as heavy as the less, must come down in half the time. All eyes watched, and lo! all eyes beheld them strike the earth at the same instant. Men then disbelieved their eyes, and repeated the experiment many times, but each time with the same result. The little ball was big enough to destroy a theory two thousand years old; and had it been little as a pea, it would have destroyed it just as well, or even more quickly.

But how is this? Did not the earth draw down the large ball, which was double the weight of the smaller, with double force? Did not the double weight indicate the double force? Yes, truly; but in drawing down the large ball there was a double force of resistance to be overcome; and as the two forces acted in a given proportion of the large ball, and in the same proportion on the less, the velocity of the two was equal, though in bulk they were unequal. Let us suppose there to be two waggons, one with a load of five tons and the other with a load of ten tons, and that the unequal loads are drawn by an equal horse-power: should not their speed be equal, though their weight is unequal? No. There must be double horse-power to draw the double weight to obtain equal speed. Let a ten-pound weight and a one-pound weight fall to the earth at the same time, and the earth must draw down the heavier weight with ten times greater force than the other that may have equal speed, and it does so. A ton weight of iron and an ounce weight, leaving the top of a pit at the same instant, would, therefore, at the same instant fall to the bottom.—*Scientific American*.

5. HOW TO VIEW THE SUN THROUGH A TELESCOPE.

To use the full aperture of the telescope is of paramount necessity either in viewing the sun or planets. If the extinction of the light is effected by coloured glasses, the best combinations I have yet found are: first, that of two plane glasses of a shade between brown and violet, with one of a grass-green hue interposed; or second, of two green glasses, with a blue one coloured by cobalt between them. These allow scarcely any rays of the spectrum to pass but the yellow and less refrangible green; and they cut off almost all the heat. The perfection of vision is attained by using only the extreme red rays; but glasses which transmit these cannot be used on account of the heat they allow to pass. Whatever combination of glasses be used, they are, however, apt to crack and fly to pieces through the heat which they do intercept.—*Sir John Herschel*.

6. THE USE OF THE BAROMETER.

Many private persons consult the barometer, and see it daily, and are surprised to find that they cannot rely on its indications, especially on those of the unscientific wheel barometer, with a face like an underdone clock. The fault, however, is not with the instru-

ment, but with those who use it improperly; "th' ap'ratus," as Salem Scudder observes, "can't lie." A few words on the practical use of the weather-glass may be useful. It is an invaluable fact, and too often overlooked, that the state of the air does not show the present but the coming weather, and that the longer the interval between the barometric sign of change and the change itself, the longer and more strongly will the altered weather prevail; so, the more violent the impending storm, the longer warning does it give of its approach. Indications of approaching change of weather are shown less by the height of the barometer than by its rising or falling. Thus the barometer begins to rise considerably before the conclusion of a gale, and foretells an improvement in the weather, though the mercury may still stand low, nevertheless, a steady height of more than thirty inches is mostly indicative of fine weather and moderate winds.

Either steadiness or *gradual* rising of the mercury indicates settled weather, and continued steadiness with dryness foretells very fine weather, lasting some time. A *rapid* rise of the barometer indicates unsettled weather; a *gradual* fall of one-hundredth of an inch per hour indicates a gradual change in the weather, and moderate rising of the wind; several successive falls to the amount of one-tenth of an inch, indicate a storm *eventually* but not a sudden one: and a gale if the fall continues. These storms are not dangerous, as they can be foretold; but a sudden fall one-tenth of an inch betokens the quick approach of a dangerous tempest. Alternate rising and sinking (oscillating) indicates unsettled and threatening weather. When the barometer sinks considerably, wind and rain will follow—from the northward, if the thermometer is low for the season; from the southward, if high. For observing barometric chances, the barometer should be placed at the eye-level, out of the reach of sunshine and of artificial heat, as of fires, and out of the way of gusts of wind. It should be set regularly twice a day by a competent person. A card should be accessible close by, and on it should be registered the indication at each setting.—*Chamber's Journal*.

7. SCIENTIFIC EXPEDITION TO PALESTINE.

Letters recently received in this country give a very favourable account of the progress of the expedition which left England in November last, for the scientific exploration of the Holy Land. The party consists of the Rev. H. B. Tristram—a gentleman well known for his work on the Great Sahara, and many zoological and botanical contributions to different publications—Mr. W. P. C. Meddlycott, Mr. G. G. Fowler, Mr. H. M. Upcher, and others.

In the beginning of last month the party were at Jericho, commencing the investigation of the natural products of the valley of the Jordan, which offered abundant promises of fruitful results, the preceding month having been spent upon the more barren field of enquiry between Beyrout and Jerusalem. In the Jordan valley a new fauna was found to prevail, essentially different from that of the high lands, and surpassing all previous expectations as regards its abundance, if not as regards its variety.

The zoologists of the expedition had obtained many interesting species of small mammals. In birds several attractive captures had been made.

Among the cold-blooded vertebrates (reptiles, batrachians, and fishes) little had been yet done, but more attention to these would be paid when the season was further advanced.

Mr. Lowne, the botanical collector, has already amassed some 220 species of plants in flower, and those of the party who turned their attention to insects and shells had likewise been tolerably successful.

The expedition proposes to pass the summer in the highlands of the Lebanon and surrounding district, and to return home in the autumn.

It is with great satisfaction we hear the Government Grant Committee of the Royal Society have resolved to recommend a grant of £50 to Mr. Tristram in aid of the large expenses he had been put to in equipping and carrying out this expedition, which promises brilliant results in every department of science.—*The Reader*.

VII. Papers on Natural History.

1. HISTORICAL SKETCH OF NATURAL HISTORY IN CANADA.

From an address recently delivered at the Conversazione of the Natural History Society of Montreal, by the Hon. Mr. Sheppard, we select the following historical sketch of the progress of Natural History in Canada:

Mr. Sheppard said: In order to do this subject justice, it will be necessary to go back to the early settlement of the country, when the Jesuit missionaries visited the wilds of America, with the in-

tention of Christianizing the natives. These missionaries were a learned and observant class of men; and their opportunities of becoming acquainted with the natural productions of the country, were greatly facilitated by their close intercourse with the Indians, —following them in their periodical migrations, and sojourning with them in their encampments. They collected a vast amount of information from their native friends about the animals, and especially about the plants, many of which were known to possess healing properties, and to be useful in the few arts that the Indians were acquainted with. The results of these researches were, at a later period, collected and embodied by Charlevoix, in his *History of Canada*. They are well worthy of being consulted. Towards the end of the last century, Canada was visited by André Michaux the elder, coming from the north, through Hudson's Bay, across the country by lakes Mistisissions and St. John, down the Saguenay, and up the north shores of the St. Lawrence, disappearing southward at some point unknown to us. It must have been very interesting to him to note the gradual change of the vegetable productions in his progress south,—from the barren grounds of the stunted birch, the vast collections of lichens and mosses which cover the surface of those dreary regions,—to the noble oaks and maples on the shores of the St. Lawrence. Michaux published the result of his observations in a *Flora of America*; but it is very meagre, compared with later works on that subject. Michaux the younger never visited Canada that I am aware of, but derived his information respecting our trees from his father. Francis Masson, that celebrated collector for the Royal Gardens at Kew, who introduced so many of the floral beauties of the Cape of Good Hope, visited Canada about the beginning of the present century. He passed a good portion of his time in Montreal; and oh, how I did yearn for the benefit of his acquaintance, with a view to information on plants of the country; but all my sighing and yearning were doomed to end in disappointment. He died here about the year 1804, at the house of Mr. John Gray, at Côte St. Catherine, a benevolent and much respected merchant. The mention of John Gray reminds me that he kindly fostered the Rev. James Somerville while in a state of mental aberration. With Mr. Somerville I was much acquainted; he was devoted to the study of natural history. It will be recollected that this gentleman was a patron and benefactor of this society. We now come to the name of Frederick Pursh, the celebrated botanist, who made his appearance in Canada in 1815. I became acquainted with him, and derived much valuable information from him about plants. He visited Anticosti in 1817, and brought back a large collection of living plants—rare in other parts of the country—some of which I cultivated in my garden; but the greater portion of them perished in the packages in which they were brought up. Among those which survived were *Ligusticum Scoticum*, a beautiful *Thalictrum*, which he named *T. purpurascens*, and an *Allium*, identified with *A. schœnoprasmum*. Pursh's *Flora of North America* is a carefully got-up book, and was the standard text-book till Gray's appeared. Pursh died here about 1821, at the house of Robert Cleghorn, Blink Bonny, a nurseryman and a good botanist,—a contemporary of Loudon. Poor Pursh was thrifless; in his declining years living mainly on the hospitality of his friends. Colonel Hamilton Smith, the learned historian of the *Natural History of Man*, visited Canada in 1817, seeking information in science generally. I became acquainted with him, but his sojourn here was very short.

Now, ladies, allow me to say a word of encouragement for you. What will you not succeed on attaining when you set your hearts on its accomplishment, as the example of the Countess Dalhousie will show! This lady became an accomplished botanist, and was an indefatigable collector of plants. She presented to this society a large herbarium of Canadian plants, beautifully preserved. She collected many living plants, and sent them home to ornament the gardens and grounds of Dalhousie Castle; and she succeeded in imbuing her lady friends with a love of botany,—some of whom made marked advances in this branch of natural history—particularly one, who subsequently sent many specimens of Canadian plants to Sir Jackson Hooker, to assist him in the compilation of his great work, "*The Plants of British North America*," in which her name is duly recorded as a contributor. The example of Lady Dalhousie is well worthy of imitation by those having leisure for study.

And now permit me, by desire, to endeavour to throw some light on the origin and progress of the Literary and Historical Society of Quebec, the elder sister of the society. Strange to say, its formation was brought about indirectly, by a political movement, in this wise. It is no doubt known to many of you that the late John Neilson was the owner of the *Quebec Gazette*, established in 1764, now in its hundredth year. In virtue of an act of parliament, it possessed the privilege of publishing all official documents as they occurred. Neilson was a great politician, and was opposed to Lord Dalhousie in some points of government. This opposition Lord

Dalhousie could not tolerate, and he came to the determination of establishing a paper which he could control, calling it the "*Quebec Gazette by Authority*," and he caused Dr. Fisher, a co-editor of the *New York Albion*, to come and take charge of it. Dr. Fisher had been a member of the *Literary and Historical Society of New York*; he persuaded Lord Dalhousie to get up a society with similar title and objects in Quebec. This was done, Chief Justice Sewell becoming the first President, and W. Green, a native of this city, the secretary. The Society was in the first instance composed of high officials and courtiers, and the fee was fixed at a high rate, for some end which can only be guessed at. Papers were read before the Society. The President gave his "*Dark Days of Canada*"; Captains Bayfield and Baddely read valuable papers on the *Geology of Canada*, and Mr. Green presented his papers on *Textile Plants*, and on the plants used in dyeing by the Indians. Shortly after the formation of that Society, some of the younger inhabitants of Quebec, perhaps thinking that they had been slighted, formed themselves into a society under the name of the "*Society for the Promotion of Arts and Science in Canada*." Lord Dalhousie refused his countenance to this new institution. Several papers were read, and a successful progress became manifest. After a while, a disposition on the part of the *Literary and Historical Society* to conciliate the new one, and even to advocate a fusion of the two, became apparent. This was ultimately effected, retaining the original title. The union of the two societies was productive of good, the working members becoming more numerous. Some of their labors appear in the *transactions of the Society*. On the accession of Sir James Kemp to the government of the Province, he very liberally bestowed to the Society a copy of that splendid work of art, *Claude's Liber Veritatis*; also a transit instrument, and an excellent telescope. Here it may be mentioned that M. Chasseur, a naturalist of Quebec, had formed a museum as a matter of speculation, principally composed of birds; but finding that it did not answer his expectation in point of revenue, he persuaded the Legislature to purchase the collection; and it was placed under the care of the *Literary and Historical Society*, in addition to their own museum, which had assumed a respectable condition. When in 1838 Lord Durham was sent out to conciliate the people, and restore Canada to a state of peace, he did at least one good thing. Led by the title of the Society to suppose that literature and history were its sole aim, he brought out a large and select collection of the ancient Greek and Latin historians, and presented it to the Society, for which he is entitled to praise. This valuable addition to the library was received thankfully, and it furnished the means for several reviews and criticisms by that very learned and esteemed member of the Society, Dr. Wilkie. At later periods that Society has been very unfortunate, having been no less than three times burnt out; losing much of its accumulation of objects of natural history, books, and apparatus, thus receiving a severe check in scientific pursuits; but it is now gradually recovering from its losses, and again rising into a state of activity. Before concluding, a word of commendation must be said on the *Geological Survey of the Province*, now for so many years so well and so efficiently conducted by its learned and amiable head, assisted by an active and scientific staff. Their joint labors have been eminently successful, as is abundantly shown by the very complete *Geological Museum* in this city; by their periodical reports of work done, now consolidated into one large volume, which, of course, will be studied by all scientific devotees, a monument of the industry of the *Commission of Survey*, and an evidence to the civilized world of the varied labors and scientific capabilities of the surveyors, well meriting the applause and gratitude of the Province, to which they are fully entitled. Shall I say a word on the subject of this Society? If permitted, it must be but a word, for you are all better acquainted with its formation and operations than I can pretend to be. The Society was formed shortly after that of the L. and H. Society; at the instance, I believe, of the late Dr. Holmes and some congenial spirits. In the first few years of its existence its progress was not very rapid, all up-hill work, as the Doctor informed me, the work resting on a few of the members; but if so, that languor has been successfully shaken off; its progress and prosperity have been of the most satisfactory nature. As a contrast to the difficulties for the acquirement of scientific information met with at a remote former period, already alluded to, allow me to state some of the great facilities which are now offered to the student of *Natural History*. In many parts of the Province there have been established Colleges for the education of youth, in which the *Natural Sciences* are taught by learned professors, with the advantage of extensive museums. I will only mention some of them, without entering into particulars. Beginning in the lower part of the province and proceeding upwards, we have Laval, McGill, Lennoxville, Queen's, Toronto, and others. As regards this city, let me mention with commendation McGill College. Here for the professed student every facility exists: regular lectures are delivered

on all branches of Natural Science, aided by a very complete museum, with a library of books of reference. To the occasional student, this Society possesses all the advantages required; an extensive and well-arranged museum, regular stated meetings, attended by all the scientific men of the city, a well-conducted magazine, open to contributors generally, a courteous and scientific curator, a large and commodious building fit for all the purposes of the Society; and if I may judge by the extent of the present goodly assemblage of patrons, there seems great reason to look forward to further satisfactory progress necessitating the extension of accommodation, bespeaking the approbation of future dwellers in this growing and beautiful city, followed by the respect of the scientific world at large."

2. WHY BEES WORK IN THE DARK.

A lifetime might be spent in investigating the mysteries hidden in a bee-hive, and still half of the secrets would be undiscovered. The formation of the cell has long been a celebrated problem for the mathematician, whilst the changes which the honey undergoes offer at least an equal interest to the chemist. Every one knows what honey fresh from the comb is like. It is a clear yellow syrup, without a trace of solid sugar in it. Upon straining, however, it gradually assumes a crystalline appearance—it *candies*, as the saying is—and ultimately becomes a solid mass of sugar. It has not been suspected that this change was a photographic action: that the same agent which alters the molecular arrangement of the iodine of silver on the excited collodion plate, and determines the formations of camphor and iodine crystals in a bottle, causes the syrupy honey to assume a crystalline form. This, however, is the case. M. Scheibler has enclosed honey in stoppered flasks, some of which he has kept in darkness, whilst others have been exposed to the light. The invariable result has been that the sunned portion rapidly crystallises, whilst that kept in the dark has remained perfectly liquid. We now see why bees are so careful to work in perfect darkness, and why they are so careful to obscure the glass windows which are sometimes placed in their hives. The existence of their young depends upon the liquidity of the saccharine food presented to them, and if light were allowed access to this, the syrup would gradually acquire a more or less solid consistency; it would seal up the cells, and in all probability prove fatal to the inmates of the hives.—*U. C. Board of Arts and Manufactures.*

3. THE USE OF FLOWERS IN COMMERCE.

The following is a portion of an address delivered before the New York Horticultural Society:—Flowers have always been cultivated by civilized nations in all parts of the world. The ancients spread them upon their feast tables, scattered flowers in the way of heroes, or warriors, returning from conquest, and used them for adorning their gods. They are our second children, and in beholding them we never tire, though the eye is soon satisfied in viewing a thing of art. We surround our homes with them, and rejoice in the early blooms of Spring. Beside all these they have a commercial value, and the apothecary's shop is odorous with their perfume. Thousands of acres are planted to flowers in France and Italy, for making perfumes alone. A single grower in Southern France sells annually 60,000 pounds rose flowers, 30,000 pounds each of jasmine, and tuberose, 40,000 pounds of violet blossoms, besides thousands of pounds of mint, thyme, rosemary, etc., and he is but one out of hundreds engaged in this branch of horticulture. The atmosphere of some of these towns is so filled with fragrance that a person is made aware of his approach to them by the odors which greet him miles away. America has every variety of soil and climate, equal to France or Italy, and she may yet rival the old world in her perfumery. Already hundreds of acres of peppermint and lavender are planted in this country, and the product exported to Europe. Though the old world bears the palm in the perfumery line, and London and Paris with their Covent Gardens and Marché aux Fleurs, lead our own city in window gardening and the cultivation of flowers in pots generally, yet New York carries on a larger trade in cut flowers than either of the cities mentioned or any other in the world. To show what is done in that line, he instanced his own sales of some of the leading flowers since last September, which were 50,000 Carnation Blossoms, 30,000 Bouvardias, 70,000 Chinese Primroses, 30,000 Tuberoses, besides over 10,000 Roses, Camellias, Heliotropes, &c., and he was but one of a large number engaged in this business.

THE MATTAPONY RIVER.—This river, which figures so much in the despatches from the seat of war in Virginia, is a stream made up of four tributaries, the name of each consisting of a single syllable, which, when combined, form the name Mattapony. The tributaries are the Mat, Ta, Po, Ny.—*Transcript.*

VIII. Biographical Sketches.

No. 27.—ABRAHAM GESNER, M.D.

This distinguished chemist and geologist died at Halifax, Nova Scotia, on the 29th of April last, in the 67th year of his age. Dr. Gesner graduated in London, in 1827, but followed his profession but a few years, devoting himself to the study of natural history. He was appointed Province Geologist of the Province of New Brunswick, in 1838, and made extensive surveys of that Province. He was the pioneer of the wild regions of the Tobique and Madewaska Rivers. His principal works are "History of New Brunswick, with Notes for Emigrants;" "Remarks on the Geology and Mineralogy of Nova Scotia;" "Industrial Resources of Nova Scotia;" "A Practical Treatise on Coal, Petroleum, and other Distilled Oils." He was the discoverer and patentee of kerosene oil, and was the first to introduce coal oils into the United States. He made and burned oils from petroleum and the denser asphalt of Trinidad as early as 1846. The "Gesner Museum of Natural History," at St. John, N. B., contains the evidences of Dr. Gesner's long and patient labor in collecting specimens of minerals. His standing as a man of science, both in America and Europe, was most creditable, and but a just reward for much labor and many sacrifices in the cause of science.—*Pictou N. S. Standard*

No. 28.—ALARIC A. WATTS, ESQ.

Alaric A. Watts, a minor poet of some celebrity in his day, died recently in England. As far back as 1822 he published a volume of "Poetical Sketches," and since then he has been editor of two or three provincial Conservative journals, and was the first editor of the *United States Gazette*. He was best known as editor of and principal writer in the *Literary Souvenir*. Mr. Watts, who was in his 65th year when he died, enjoyed a pension of £100 from the Literary Fund at the disposal of the Government.

No. 29.—MARSHAL PELISSIER, DUKE OF MALAKOFF.

Amiable Jean Jacques Pelissier was born at Maromme, near Rouen, November 6th, 1794, and educated at the military school of St. Cyr. In 1815, he was appointed a sub-lieutenant of artillery, and served in the army of the Rhine. After the events of 1815, he devoted himself to the study of military science, retaining his connection with the army; and after various minor promotions he was, in 1823, an aide-de-camp of General Grundler, in the Spanish war. The same year he was decorated with the cross of the Legion of Honour and of St. Ferdinand of Spain. Returning to France, he was, in 1828, promoted to a captaincy; and in 1828 and 1829, served with distinction in Greece. In 1830, he made his first visit on army business to Algiers; and after a long sojourn in France, again returned to Algiers in 1840, as Colonel and Assistant Chief of the General Staff of the Army of Algeria. In 1845, an insurrection occurred at Algiers, and St. Arnaud, De l'Amirault, and Pelissier were the commanding officers. One tribe, called the Ouled Riahs, refused to submit, and could not be subjected, as they lived entirely in large caves, where it would have been madness for the French soldiers to have followed. Pelissier then conceived the idea of smoking them out; and after flinging a few burning faggots into the mouth of the cave, he made offers of life and liberty if the natives would yield. But the majority of these in the cave were still opposed to submission. More faggots were thrown in, and cries and shrieks were heard. Soon all was still, and a few days after five hundred bodies of suffocated men, women, and children were brought out by the French troops. This frightful circumstance aroused a lively indignation against its author, Pelissier, who declared that he acted only in accordance with the strict orders of his commanding officer. Three years later he was made a field-marshal; and in 1848, he was made commandant of the division of Oran, which post he filled till the breaking out of the Crimean war. It was in this conflict that he won his widest reputation as a military man. He was appointed second in command under Canrobert, and, on the resignation of the latter, was made his successor. He took part in the principal battles of the Crimea, and was chief in command during the last three months of the siege of Sebastopol, and at the final and successive assault on the 8th of September, 1855. For his services he was created, by Napoleon III., Duke of Malakoff, with a pension of one hundred thousand francs; while Queen Victoria bestowed upon him the Order of the Cross of the Bath. In 1858, he was appointed minister to England, but remained in London only a year, returning to France to take command of the Army of Observation.

No. 30.—MEYERBEER.

Meyerbeer, the eldest son of a rich Jew banker of Berlin, was born in that city on the fifth of September, 1794. While he was four years old little Jacob Liebmann Meyerbeer began to play on the piano, and hearing tunes played by street organs, would in the parlor improvise accompaniments thereto. Zetler, the teacher of Mendelssohn, instructed him in the theory of music, assisted later by one Bernard Anselm Weber. When about sixteen years of age, Meyerbeer went to Darmstadt, to the music school of the Abbé Vogler, where among his fellow pupils was Carl Maria Von Weber, the composer of the "Freischütz." In Darmstadt, Meyerbeer composed an oratorio called "God and Nature," which was well received; and in 1812 his first opera, "The Vow of Jephthah," was produced at Munich, and was not well received. About this time Meyerbeer heard Hummel play the piano at a concert, and charmed with his ability, determined also to become a pianist, and to this end shut himself in his house for six months, practising night and day. He made his debut as a concert-player in Vienna, and became popular; but the old instinct of composing returned, and he gladly seized an opportunity which offered of writing an opera for the Court of Vienna, but "The Two Caliphs" was also a failure. Friends advised him to go to Italy, and in Venice he first heard Rossini's music. Here he learned in what he was deficient; and he immediately devoted to the pursuit of melody the same energy which he had hitherto devoted to the theory of music. He succeeded, for though he never attained the utter ease and flowing melody of the Italian composers, he has yet written airs as delicious and graceful as any of theirs. In 1825 Meyerbeer fairly "clutched the diadem of Fame." The occasion was the production at Venice of his opera "Il Crociota," which was soon produced in Paris. Thenceforth Meyerbeer took greater pains than ever with his operas, to which—influenced partly by domestic affliction in the loss of two children—he imparted a grander and at times more melancholy tone. In 1826 he finished "Robert le Diable," which he kept in his portfolio four years, selling it to the director of the Grand Opera at Paris, in 1830. In 1831 it was produced, and from the first night of its representation was the most popular opera ever given in Paris. All the great singers of the present day have considered themselves honoured in representing its characters. In 1836 appeared the "Huguenots," which most critics deem the composer's grandest effort; in 1849 the "Prophete" was produced at Paris with the most elaborate scenic effects yet known on the operatic stage. In 1854 came "L'Etoile du Nord," and in 1858, "Le Pardon de Ploermel." The fall of 1864 was to have been marked by the production of "L'Africaine," an opera which Meyerbeer has been promising for five years past to give to the world.

No. 31.—MAJOR-GENERAL J. B. E. STUART.

Since the death of "Stonewall" Jackson, no death has produced so profound a sensation in the Southern confederacy as that of Gen. Stuart. In repulsing one of the Federal raids, and in one of those desperate charges at the head of a charging column, the gallant and chivalrous Stuart fell, mortally wounded. He was speedily conveyed to Richmond, but did not survive long. His many gallant and daring deeds and glorious exploits will challenge the admiration of the world. He was best known and loved by his troopers. His frank and greivable face always cheered them in the camp, the march, and he bivouac. His bright flashing eye and clear ringing voice inspir and nerved them in the hour of battle. His funera took place the appointed time. The metallic coffin, containing the remains of the noble soldier, was carried down the centre aisle of the church and placed before the altar. Wreaths, and a cross of evergreens, interwoven with delicate lilies of the valley, laurel, and other flowers of purest white, decked the coffin. The scene was sad and impressive. President Davis sat near the front, with a look of grief upon his care-worn face; his cabinet officers were gathered around, while on either side were the senators and representatives of the Confederate Congress. Scattered through the church were a number of generals and other officers of less rank—among the former were General Ransom, commanding the department at Richmond. Hundreds of sad faces witnessed the scene; but the brave Fitz Lee and other war-wearied and war-worn soldiers whom the dead Stuart had so often led where the red battle was the fiercest, and who would have given their lives for his, were they in the fight, doubtless striking with a noble courage as they thought of their fallen general. The short service was read by the Rev. Dr. Peterson, a funeral anthem sung, and the remains were carried out and placed in the hearse, which proceeded to Hollywood Cemetery, followed by a long train of carriages. A military escort accompanied the procession, but the hero was laid in his last resting place on the hill side, while the earth still trembled with the roar of artillery and the noise of the deadly strife of armies.

No. 32.—NATHANIEL HAWTHORNE, ESQ.

Mr. Hawthorne was born at Salem, Mass., on the 4th of July, 1804. He entered Bowdoin College, Maine, in 1825, and at the close of his collegiate career he settled at Salem. Fortune some time later (in 1838) found him a government position as gauger in the Boston Custom House, under Mr. Bancroft, then the collector at that port during the Van Buren administration. When the Whigs came into power in 1841, Hawthorne lost his appointment, and, conceiving (probably like Southey, Coleridge, and Lovell) the idea of a pantocracy, he joined the famous Brook Farm Association, returning, however, fully satisfied with his experience of "a perfect state of society" to Boston, in 1843. Here he married and made his home; subsequently for some years in "the Old Manse," at Concord, Mass. On the accession of the Polk administration, he received the appointment of Surveyor of the port of Salem. When the Whigs returned to power, Hawthorne returned to his retreat and to his studies among the hills of Berkshire. Once again, in 1842, he was tendered and accepted office under government—the Consulate at Liverpool, one of the most lucrative appointments in the gift of the President, being placed at his disposal by Mr. Pierce, partly, no doubt, as a tribute of long standing personal friendship, and partly as a reward also for important service as a party penman. His remaining days, after his return from Liverpool, were spent at Concord, New Hampshire. Hawthorne's literary life commenced at Salem on the close of his college days. Leading, for several years, almost the life of a recluse, he here produced a series of sketches, tales and romances, some of which were found worthy of revival in his maturer years under the title of *Twice-Told Tales*. Then followed, after his retirement from the Boston gaugership, the papers called *Mosses from an Old Manse*, succeeded by the most widely known of all his works, *The Scarlet Letter*, in 1850; by the *House of Seven Gables*, in 1851; by the *Blythesdale Romance*, in 1852; by the *Marble Faun*, in 1859; and by *Our Old Home*, his last work, in 1863. His minor sketches would be difficult of enumeration. They continued to grace the pages of the best cotemporary periodicals, occasionally, up to the time of his death.

No. 33.—THE REV. DR. HITCHCOCK.

Rev. Dr. Hitchcock, formerly President and late Professor in Amherst College, died at his residence in Amherst, Massachusetts, in the seventy-first year of his age. Dr. Hitchcock obtained great celebrity as a scientific geologist as well as for his theological attainments.

IX. Papers relative to the Bible.

1. LORD LYNDHURST'S FAITH IN THE BIBLE.

The Right Hon. the Earl of Harrowby, chairman of the Stafford Auxiliary Bible Society, was prevented attending a recent meeting by the severe storm of wind, snow, and hail, which raged with such violence that he did not like to expose his servants to such a trial. His lordship, if he had been able to be present, would have told the meeting the following anecdote, which we have no doubt will be perused with great interest at the present time. "A few months ago," his lordship says in his letter, "I had occasion to call on the late Lord Lyndhurst, and having for some years communicated with him from time to time on the subject of Mount Sinai, and the disquisitions upon the origin and interpretation of the inscriptions which had been published by the Rev. Mr. Forster, referred to a recent publication by that gentleman, and asked him his opinion of the conclusions come to. I found that he agreed, as heretofore, generally in the conclusions, without binding himself to an agreement upon every point. But the old man proceeded to say, with great emphasis, 'A highly interesting subject—highly interesting; every thing that concerns the Exodus—especially in these days. But none of these questions that are now raised trouble me. When I recollect that our Saviour said, "If a man hear not Moses and the prophets, he will not be persuaded though one rose from the dead." I think that should be enough for me. No! these things don't trouble me. If, when Ezra revised the Pentateuch, any mistakes were made in numbers and figures, that makes no difference to me. I know in all manuscripts there is nothing so liable to error as figures.' After a few observations expressive of his interest in the whole story of Abraham, as recorded in Genesis, and its consequences, the subject dropped, and we passed on to other topics. The body was feeble, but the mind was clear and vigorous as ever. There are many, who have not the means of investigating these subjects themselves, to whom the testimony of the faith of such a man, unshaken by investigation, might be of comfort.—*Staffordshire (England) Advertiser*.

2. PERSONAL POWER OF THE BIBLE.

This collection of books has been to the world what no other book has ever been to a nation. States have been founded on its principles. Kings rule by a compact based on it. Men hold the Bible in their hands when they prepare to give solemn evidence affecting life, death, or property; the sick man is almost afraid to die unless the Book be within reach of his hands; the battle-ship goes into action with one on board whose office is to expound it; its prayers, its psalms are the language we use when we speak to God; eighteen centuries have found no holier, no diviner language. If ever there has been a prayer or a hymn enshrined in the heart of a nation, you are sure to find its basis in the Bible. There is no new religious idea given to the world, but it is merely the development of something given in the Bible. The very translation of it has fixed language and settled the idioms of speech. Germany and England speak as they speak because the Bible was translated. It has made the most illiterate peasant more familiar with the history, customs, and geography of ancient Palestine, than with the localities of his own country. Men who know nothing of the Grampians, of Snowdon, or of Skiddaw, are at home in Zion, the lake of Gennesareth, or among the hills of Carmel. People who know little about London, know by heart the places in Jerusalem, where those blessed feet trod which were nailed to the Cross. Men who know nothing of the architecture of a Christian cathedral can yet tell you all about the pattern of the Holy Temple. Even this shows us the influence of the Bible. The orator holds a thousand men for half-an-hour breathless—a thousand men as one, listening to his single word. But this Word of God has held a thousand nations for thrice a thousand years spell-bound; held them by an abiding power, even the universality of its truth.—*Rev. F. W. Robertson.*

3. THE UNITY OF THE BIBLE.

The Bible is one revelation, woven together with a wondrous variety of texture and hue, but with a yet more wondrous unity of design and execution. It is a Titanic arch, built upward from each side with precious marbles of divers qualities and veinings, from heaven's own quarries, culminating far up on high in glorious symmetry and strength, where Christ, the keystone, locks the massive structure in eternal rest, and crowns it with divinest grace. It cannot be tampered with. It is incapable of reconstruction. It cannot be built down to a smaller model. To attempt this is to tumble it into a mass of ruins.

4. THE HOLY SCRIPTURES.

That the mind of man may be worthily employed and taken up with a kind of spiritual husbandry, God has not made the Scriptures like an artificial garden, wherein the walks are plain and regular, the plants sorted and set in order, the fruits ripe, and the flowers blown, and all things fully exposed to our view; but rather like an uncultivated field, where, indeed, we have the ground and hidden seeds of all precious things, but nothing can be brought to any great beauty, order, fulness of maturity, without our own industry; nor, indeed, with it, unless the dew of his grace descend upon it, without whose blessing this spiritual culture will thrive as little as the labour of the husbandman without showers of rain.—*Dr. H. Moore.*

5. THE DESTRUCTION OF SENNACHERIB'S ARMY.

Dr. Milman never allows his faith to be easily imposed upon by plausibilities, but he illustrates the destruction of the army of Sennacherib, from a remarkable classical coincidence. Our readers are aware that Herodotus refers to this miracle, ascribing their destruction very absurdly to a number of field mice gnawing asunder their quivers and bow-strings. Dr. Milman has pointed to one of those coincidences so often confirming Scriptural story; it seems, according to Herodotus, the mouse was the Egyptian hieroglyphic symbol of total destruction. Herodotus was, no doubt, misled by this; he saw the shield, the quiver and the bow, the symbols for a great army, in conjunction with the field mouse, and then supposed this to be the minister of their destruction, confusing the symbol of completeness with the cause. We cannot but notice upon this, how often some such little reading not only confirms a scriptural story, but throws light upon a difficulty; the statement of Herodotus seemed to us marvellous, when we read it as boys; the reading of Dean Milman plainly reveals the cause of the garrulous old Athenian's mistake.—*The Eclectic.*

The foundation of all political happiness is confidence in the integrity of man; and the foundation of all happiness—temporal and eternal—reliance on the goodness of God.

X. Miscellaneous.

THE DUMB CHILD.

She is my only girl;
I asked for her as some most precious thing,
For all unfinished was love's jewelled ring,
Till set with this soft pearl!
The shadow time brought forth I could not see,
How pure, how perfect, seemed the gift to me!

Oh! many a soft old tune
I used to sing unto that deafened ear,
And suffered not the slightest footstep near,
Lest she might wake too soon;
And hushed her brothers' laughter while she lay.
Ah! needless care! I might have let them play.

'Twas long ere I believed
That this one daughter might not speak to me;
Waited and watched—God knows how patiently!
How willingly deceived.
Vain love was long the untiring nurse of Faith,
And tended Hope until it starved to death.

Oh! if she could but hear
For one short hour, till I her tongue might teach
To call me mother, in the broken speech
That thrills the mother's ear!
Alas! those sealed lips never may be stirred
To the deep music of that holy word!

My heart it sorely tries,
To see her kneel with such a reverential air
Beside her brothers at their evening prayer;
Or lift those earnest eyes
To watch our lips as though our words she knew,
Then move her own, as she were speaking too.

I've watched her looking up
To the bright wonder of a sunset sky,
With such a depth of meaning in her eye,
That I could almost hope
The struggling soul would burst its binding cords,
And the long pent up thoughts flow forth in words.

The song of bird and bee,
The chorus of the breezes, streams, and groves,
All the grand music to which nature moves,
Are wasted melody
To her; the world of sound a tuneless void;
While even silence hath its charm destroyed.

Her face is very fair;
Her blue eye beautiful; of finest mould
The soft white brow, o'er which, in waves of gold,
Ripples her shining hair.
Alas! this lovely temple closed must be,
For He who made it keeps the master key.

Wills He the mind within
Should from earth's Babels-clamor be kept free,
E'en that His, still, small voice and step might be
Heard as its inner shrine,
Through that deep hush of soul, with clearer thrill,
Then should I grieve? O, mourning heart, be still!

She seems to have a sense
Of quiet gladness, in her noiseless play;
She hath a pleasant smile, a gentle way,
Whose voiceless eloquence
Touches all hearts, though I had once the fear
That even her father would not care for her.

Thank God it is not so!
And, when his sons are playing merrily,
She comes and leans her hand upon his knee,
O, at such times, I know,
By his full eye, and tones subdued and mild,
How his heart yearns over his silent child.

Not of all gifts bereft,
Even now. How could I say she did not speak?
What real language lights her eye and cheek,
With thanks to Him who left

Unto her soul yet open avenues,
For joy to enter, and for love to use!

And God in love doth give
To her defect a beauty of its own;
And we a deeper tenderness have known
Through that for which we grieve.
Yet shall the seal be melted from her ear,
Yea, and my voice shall fill it—but not here.

When that new sense is given,
What rapture will its first experience be,
That never woke to meaner melody
Than the rich songs of heaven—
To hear the full-toned anthem swelling round,
While angels teach the ecstasies of sound.

2. THE AUTHOR OF "HOME, SWEET HOME."

As I am here, (in Washington,) remarks a friend of the poet, watching the course of great men and the destiny of party, I meet often with strange contradictions in this eventful life. The most remarkable was that of the poet, J. Howard Payne, the author of "Sweet Home." I knew him personally. He occupied the room under me for some time, and his conversation was so captivating that I have often spent whole days in his apartment. He was an applicant for an office under the government at the time—Consul at Tunis—from which he had been removed. It was a sad thing, indeed, to see the gifted poet subjected to all the humiliation of office seeking. Of an evening we would walk along the streets, and looking into the lighted parlors as we passed, would once in a while see some family circle so happy, and forming such a beautiful group, and then pass silently on. On such occasions he would give me a history of his wanderings, his trials, and all the cares incident to his sensitive nature and poverty. "How often" remarked he, "I have been in the heart of Paris, Berlin, London, or some other large city, and heard persons singing, or playing on the piano, 'Home, Sweet Home,' without a shilling to buy the next meal with, or a place to lay my head. The world has literally sung my song until every heart is familiar with its melody—yet I have been a wanderer from my boyhood. My country has turned me ruthlessly from my office, and in my old age I have to submit to humiliation for bread." Thus he would complain of his hapless lot. His only wish was to die in a foreign land; to be buried by strangers, and to sleep in obscurity.

I met him one day. He was looking unusually sad.

"Have you got your Consulate?" said I.

"Yes, and leave in a week for Tunis. I shall never return."

The last expression was not a political faith. Poor Payne!—his wish was realized. He died at Tunis among strangers, far from his native land. Whether his remains have ever been brought to this country, I know not. They should be, however; and if none others will do it, let the homeless and friendless throughout the world contribute their mite for the purpose of erecting a suitable monument to the poet Payne. I knew him well, and will contribute my mite. Let the inscription on his monument be:—

HERE LIES J. HOWARD PAYNE.

THE AUTHOR OF "HOME, SWEET HOME."

A wanderer in life—whose songs were sung in every tongue,
And found an echo in every heart,

NEVER HAD A HOME.

HE DIED IN A FOREIGN LAND.

XI. Educational Intelligence.

CANADA.

—UNIVERSITY OF MCGILL COLLEGE.—On the second day, the Chair was taken by Mr. Morris, and the proceedings in the faculties of medicine and law were opened with prayer by the Rev. Canon Leach, D.C.D., LL.D. The minutes of the proceedings at the meeting of the previous day were then read by the Secretary, Wm. C. Baynes, B.A.

The President then expressed his satisfaction at the general management of the University. In reference to the gold medals now in its gift, they were substantial evidences of the favor and confidence with which it was regarded. The University, he was convinced, was steadily rising, and a brilliant and prosperous future was before it.

Faculty of Medicine.—Dr. G. W. Campbell, Dean of the Faculty of Medicine, then made the following announcements:—The number of matriculated students in the past session was 177; of these 98 were from Canada East, 78 from Canada West, 1 from New Brunswick, 1 from Nova Scotia, 1 from Prince Edward's Island, and 8 from the United States. The

number of students who passed the Primary Examination, which includes Anatomy, Chemistry, Materia Medica, Institutes of Medicine, Botany and Zoology, was 31. The following list contains the names of the 23 students presented for the degree of M.D., C.M.:—William Wood Squire, M.A.; Griffith Evans, James Paterson, David Howard Harrison, Herbert S. Tew, Chas. Bullen, Richard A. Kennedy, David Robertson, George Dice, Alex. A. Ferguson, Horace P. Redner, John Dodd, William Kempt, Peter A. McDougall, Marcel Richard, Charlemagne Dubuc, John D. McCord, Alex. R. Pinet, Mills Kemble Church, Edward B. Gibson, Kenneth Reid, Montrose A. Patten, Sam Pratt Woodful. Prosper Bender, James A. Temple, and John R. Richardson, passed their examination for Graduation, but not being of age could not receive their Degrees until next Convocation. The prizes given by the Medical Faculty are three in number, and were awarded as follows:—William Wood Squire, M.A., for the best thesis; Daniel Howard Harrison, for the best Final Examination; Kenneth Reid for the best primary Examination; Messrs. Bullen, Reid, Kempt, and Church's theses were considered worthy of competing for the best prize. William Wood Squire, M.A., Herbert Tew, Professor's prizes in Clinical Medicine. W. H. Fraser, Professor's prizes in Botany. W. H. Fraser, do in Zoology. Dr. Hall administered the oath to the graduating class, and Principal Dawson performed the ceremony of capping them. William W. Squires then delivered the Valedictory. Professor Scott, M. D., then addressed the graduates in Medicine, dwelling especially on their future prospects, the difficulties inseparable from their arduous calling, and also from the occasional credulity of even educated patients in quacks and charlatans; likewise the cold ingratitude of some, which latter circumstances should not make them weary in well-doing, since their motive should be higher than any mere human feeling or applause. Above all things, let them never deceive the dying man when he asked them their opinion of his case—to do so being one of the most heartless and reprehensible cruelties that could be committed. He rejoiced to find that new medals had been given to the Faculty of Arts; and wondered that the Medical Faculty, the eldest of the three, had not yet had such presented to it. Such was the generosity, however, of the citizens of Montreal, that he had little doubt but that at the next Convocation the Dean of the Medical Faculty would be able to present one to the deserving student. Such a medal to be styled after the late Professor Holmes, who first established a medical school here, forty years ago, would be a well-deserved and graceful tribute to his memory, and he (Dr. Scott) would recommend this subject to the consideration of the ladies.

Faculty of Law.—The Hon. J. J. C. Abbott, B.C.L., Dean of the Faculty of Law, stated that the graduating class consisted of eleven students, as follows:—John Boyd, B.A., Leonidas Heber Davidson, B.A., Henri Lesieur Desaulniers, Naphtali Durand, Joseph Antoine Galarneau, Richard A. A. Jones, B. A. Joseph, O. Joseph, Wilfrid Laurier, Chas. O. Stevens, Arthur Taschereau, Alfred Welch. The Dean having made these announcements, the oath was administered by the Mr. Baynes, B.A., after which Principal Dawson capped them. A valedictory address was then delivered in the French language by Wilfrid Laurier of the graduating class. Prof. Torrance, B.C.L., then addressed the graduates in law, commenting on the altered and superior auspices under which they would enter upon the practice of law, in comparison with what would have been their case some time ago. This advantage lay in the labours of the codification commission, about three-fourths of the law being now so codified, and the Hon. Mr. Cartier trusted to see in the next session of Parliament a complete code presented for adoption by the Legislature. All the embarrassment in seeking for authorities from the period of the Roman law down to the statute of yesterday, and which had been such a grievous burden to their predecessors, would be saved them. Still the glorious uncertainty of the law would certainly remain, therefore they need not fear but that there would still be plenty of work for them all. After enforcing diligence upon them, so long as they should continue to be connected with the profession, he alluded to the medal question, hoping that the appeal of the Medical Faculty would be responded to, and stating his conviction that they in the Faculty of Law should have their gold medal as well. Prof. Leach, Dean of the Faculty of Arts, then announced that Gulian Pickering Rixford had complied with all the requirements for a degree of Civil Engineer, which was accordingly conferred upon him.

Principal Dawson now made the announcement for the next session. He stated that the term had been one of the most successful since the founding of the Institution. During the past year there had been 301 students in all Faculties, and of these 47 had graduated, namely, 18 in arts, 28 in medicine, and 11 in law. He desired that any graduate who

did not regularly receive the University Calendar should send his address, that the calendar might be sent to him. It was likewise expected that the graduates would act as agents for it not so much in the interests of the McGill University itself, as in those of the higher education to which the institution was devoted. He then referred to the extreme desirability of drawing closer the relationship between the graduates and their university. Difficulties were experienced in this country in graduates keeping up their connection with the college after they had left its walls. He doubted whether fellowships would altogether answer the end sought. Those who had studied there had ceased to compete for its prizes, and had gone to contend for those of life and of the great world—still the university naturally looked to her children to remember, and benefit her amidst their active pursuits; and the university had given them the opportunity of doing this. The graduates were represented in the governing body, and were going to be so in a yet greater degree; indeed, they would be so to an extent, perhaps, beyond that accorded by any other university. They, the graduates, should unite themselves as a body of men. It was true, they had a graduates' society, but it was small in number. Its members should be extended to wherever there was residing a graduate of McGill College, and by it they should be able to ascertain where every one of her alumni were to be found. The graduates ought to keep themselves fully informed with the history and doings of their University, for they and the public could do many things for it which the Professors were unable to do. With regard to medals, the Faculty of Arts were now highly favoured in that respect, but the professional faculties had, he thought, less need of medals than had the faculty of arts. Indeed, properly considered, the other faculties did share in these medals, for the faculty of arts was the true door to those of the professions. Nevertheless, such distinctions might be awarded in law and medicine to mark their distinguished men, and would do good. But the graduates might themselves take the matter in hand, and as reference had been made to the possibility of the ladies providing a medal or medals for the professional faculties, the graduates in law and medicine might now put to the proof which of the two bodies had the greatest influence with the ladies. The Medical Faculty itself, three hundred strong in Canada, ought to be able to erect a wing to the college for that faculty; and to the graduates in law he would say, let them endow a Law Chair. The valuable library of the late Chief Justice was now for sale; could they not raise the funds to purchase it, and present it to the University library? The law of Lower Canada in regard to the higher branches of education, was in a most disgraceful state; let the graduates take this up, and it would give to them a yet greater weight. The professors wished to see a union of feeling and action amongst the graduates in arts, law, and medicine, for when the former were gone, who but the students that had been trained in the University, could be looked to to support and guide it onward to futurity. The president then made a few remarks, recommending that the advice of the principal be acted on; and hoping that at the next convocation it would be announced that the graduates in each of the professional faculties had subscribed for a medal. The benediction was then pronounced by the Rev. Prof. Cornish, and the meeting separated.—*Witness.*

XII. Departmental Notices.

PROVINCIAL CERTIFICATES GRANTED BY THE CHIEF SUPERINTENDENT OF EDUCATION.

The Chief Superintendent of Education, on the recommendation of the masters of the Normal School, and under the authority of the following section of the Upper Canada Consolidated Common School Act. 22 Victoria, chap. 64, has granted to the undermentioned Students of the Normal School, Provincial Certificates of Qualification as Common School Teachers in any part of Upper Canada:

"107. The Chief Superintendent of Education, on the recommendation of the Teachers in the Normal School, may give to any Teacher of Common Schools a Certificate of Qualification, which shall be valid in any part of Upper Canada until revoked; but no such certificate shall be given to any person who has not been a Student in the Normal School."

The certificates are divided into classes, in harmony with the general programme, according to which all teachers in Upper Canada are required to be examined and classified, and are valid until revoked, or until the expiration of the time mentioned in the certificate.

Each certificate is numbered and recorded in the Register of the Department, in the following order:

THIRTY-FIRST SESSION.—DATED 15TH JUNE, 1864.

MALES.

<i>First Class.—Grade B.</i>	<i>First Class.—Grade C.</i>
1837 Allan, Absalom Shade(1461).*	1840 Ellis, John Allen.
1838 Houston, William.	1841 Vance, William (1377)
1839 McCamus, William, (1091, 1169.)	1842 Wright, Aaron Abel.

* The figures in brackets indicate the number of a previous certificate obtained by the student named.

<i>Second Class.—Grade A.</i>	1861 Murch, Thomas.
1843 Allen, John.	1862 McCallum, Malcolm.
1844 Bingham, James William (473.)	1863 McDonald, John James.
1845 Callinan, Thomas.	1864 McIntyre, George.
1846 Earl, Barton.	1865 McLim, William Andrew.
1847 McColl, Hugh.	1866 Nicholson, Thomas (1392.)
	1867 Rae, Alexander Marshall.
	1868 Simpson, John William (1785.)
	1869 Smith, William Charles.
	1870 Wright, George Catley.

Second Class.—Grade B.

1848 Arthur, Samuel.	
1849 Balderson, Thomas.	
1850 Braiden, Richard.	
1851 Brown, James Burt.	
1852 Campbell, James.	
1853 Ellis, Frederick Llewellyn.	
1854 Fraser, John.	
1855 Frazer, George James.	
1856 Fry, Menno Simon.	
1857 Gregory, Thomas.	
1858 Haggerty, Hugh.	
1859 Jennison, Reuben Robinson.	
1860 Metcalf, John Henry.	

Second Class.—Grade C.

(Expire one year from this date.)

1871 Clark, James Frederick.	
1872 Farrington, James.	
1873 Harper, Robert.	
1874 Lowe, Peter (1672.)	
1875 McLean, James.	
1876 McLean, Peter.	
1877 Russell, John Roe.	
1878 Smith, James.	

FEMALES.

<i>First Class.—Grade B.</i>	1897 Burwash, Mary.
1879 Bell, Mary Ann (1699, 1793.)	1898 Crawford, Grace (1833.)
1880 Duck, Mary Jane (1309.)	1899 Donohoe, Anne.
1881 Ross, Catherine McCandie.	1900 Elder, Christina Hossie (1714.)
<i>First Class.—Grade C.</i>	1901 Elliott, Margaret.
1882 Anker, Mary Anne (1496.)	1902 Gemmell, Jessie.
1883 Churcher, Annie (1815.)	1903 Jackson, Ellen.
1884 O'Brien, Eliza (1707, 1803.)	1904 Mainprize, Sarah.
1885 Sullivan, Annie.	1905 McIntosh, Margaret.
<i>Second Class.—Grade A.</i>	1906 Scott, Eliza Patton (1834.)
1886 Barnes, Anna (1810.)	1907 Scott, Jane.
1887 Cameron, Annie Isabella (1811.)	1908 Sidway, Elizabeth.
1888 Campbell, Mary Ann.	1909 Sinclair, Janet (1835.)
1889 Cantlon, Elizabeth.	1010 Trout, Harriet Ann.
1890 Ewan, Janet.	1911 Turner, Maria Jane.

Second Class.—Grade C.

(Expire one year from this date.)

1891 Lamb, Susannah (1718, 1822.)	1912 Agar, Jane.
1892 Legge, Isabella.	1913 Campbell, Sarah Anne.
1893 Martin, Elizabeth Margaret (1705, 1824.)	1914 Cusack, Amelia.
1894 MacGregor, Mary (1823.)	1915 Harcus, Mary.
<i>Second Class.—Grade B.</i>	1916 Marling, Mary Ellen.
1895 Aitken, Jeanie.	1917 McBean, Isabella.
1896 Bales, Anne (1831.)	1918 McLeod, Mary.

EXPIRED CERTIFICATES.

The certificates of the *Second Class, Grade C.*, granted subsequently to the Nineteenth Session, have been limited to one year from their respective dates. In the *Journal of Education* for July, 1860, for February and July, 1861, for February and August, 1862, for February and July, 1863, and January, 1864, lists of the certificates which had expired up to those dates were published, and the following list shows those which expired on the 15th June, 1864.

MALES.

1671 Jordan, Thomas.	1673 Moyer, Eli Nash.
1672 Obtained <i>Second Class C.</i> (1874.)	1674 Rockwell, Ashbel.
	1675 Obtained <i>First Class C.</i> (1745.)

FEMALES.

1712 Carlisle, Jane.	1717 Obtained <i>Second Class A.</i> (1798.)
1713 Obtained <i>Second Class A.</i> (1796.)	1718 Obtained <i>Second Class B.</i> (1822) and <i>A.</i> (1891.)
1714 Obtained <i>Second Class B.</i> 1900.	1719 Lymburner, Eliza.
1715 Obtained <i>Second Class B.</i> (1818, 1899.)	1720 Simons, Theresa Maria.
1716 Obtained <i>First Class B.</i> (1795.)	1721 Obtained <i>Second Class B.</i> (1827.)

*. A Certificate has no legal value after the date of its expiration.

Education Office,
Toronto, 15th June, 1864.

ALEXANDER MARLING,
Registrar.

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Education Office, Toronto.