

Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

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

Additional comments /
Commentaires supplémentaires: | |

JOURNAL OF EDUCATION,

Upper



Canada.

VOL. X.

TORONTO: NOVEMBER, 1857.

No. 11.

CONTENTS OF THIS NUMBER.

	PAGE
I. Public Prayers in Schools and Colleges	161
II. PAPERS ON PRACTICAL EDUCATION.—1. Formation of character. 2. Teachings of the Eye. 3. Scientific Illustrations in Schools. 4. Art Schools in Sweden. 5. Lessons from Nature. 6. Notes of a Lesson on the Tongue.....	164
III. MISCELLANEOUS.—1. Sympathy of Numbers. 2. Two Million Tons of Silver in the Sea. 3. Look Straight in my Eyes... 166	
IV. EDITORIAL.—1. Educational Features of the Provincial Exhibition, 1857. 2. Provincial Certificates Granted to Normal School Students. 3. Open Competition for the Degree of B.A. at the University of London. 4. Death of Beranger. 5. Death of Auguste Comte	168
V. PAPERS ON INDIA.—1. The East India Massacre. 2. India Under the English. 3. The East Indian Empire. 4. Rev. Dr. Duff on the new Indian Universities. 5. Indian Names. 6. Noble Christian Martyr in India. 7. A French Testimony to the English in India.....	172
VI. EDUCATIONAL INTELLIGENCE.—1. British and Foreign—(1) Education of the Natives in India; (2) University of Glasgow; (3) Oxford University and Roman Catholics. 2. Canada—(1) University of McGill College, Montreal; (2) Do. Queen's College, Kingston; (3) Do. Victoria College, Cobourg; (4) St. Francis' College, Richmond.....	175
VII. LITERARY AND SCIENTIFIC.—1. The Duke of Manchester. 2. The Press of Australia.....	176
VIII. Departmental Notices.—IX. Advertisements.....	176

PUBLIC PRAYERS IN SCHOOLS AND COLLEGES.

BY PROF. F. D. HUNTINGTON.

In all the principal seats of learning in the United States and Canada there is a daily social service of devotion for the students. We are not aware of a single exception to this religious usage. Whatever the notions or doubts of educators may be, it seems to be practically felt that some sort of moral power is lodged in such an observance. An indistinct sense lingers in the mind that somehow the interests most sacred and most prized, in these assemblies of youths, are at least safer with it than without it. Whether its essential spiritual comeliness and dignity are generally recognized or not, the venerable traditions of Christendom sustain it and demand it. To a literary institution wholly renouncing it, the community would find a grave difficulty in continuing its confidence.

With the right-minded guardians and officers of education it becomes a vital and important question, how to conduct these exercises so that they shall fulfil the manifest purpose of their appointment; have a spirit as well as a shape; bring a devout sacrifice as well as a bodily attendance; diffuse a hallowing influence over the restless and eager life congregated there; awaken strong resolves and pure aspirations, call down the answer and benediction of Heaven. In many instances, as we have abundant reason to believe, the method is far from satisfactory either to those that listen or those that lead.

Perhaps the first condition of any adequate benefit from the service is that it be treated by all that are responsible for it as a reality; as what it pretends to be; as real prayer. After all, to a striking degree, the tone and manner of a whole institution will insensibly take their character from the manifest spirit and bearing of its principal conductors. Let it be plain to every hearer and witness that in these gatherings there is more than a pretence of praying. Let it be seen that in one at least, in him who is speaking, and in as many as do truly accompany him, man is verily speaking to his Maker, and speaking in an humble expectation that he shall be heard;—telling his real wants, acknowledging sins that he really deplores, breathing requests for helps and blessings that he really desires. A nameless power and impression will inevitably go with such devotions. Artifice will be driven out. The ingenuities of invention, in thought or phrase, will never so pass the line of simplicity as to trespass on the awful sanctity of the Ineffable Presence invoked. Excess of human elaboration and indolent neglect are equally alien from a veritable intercourse with the Father of spirits. And nowhere is either error more likely to be seen through and despised than in an auditory of young men. Their quick moral instincts, and their yet unperverted habit of judging without the bias of a mere current and institutional propriety, render them accurate and searching critics of sincerity.

The particular circumstances of a literary institution will naturally impart a somewhat local and special character to the petitions and thanksgivings offered before its members. Young men are not insensible to this direct and peculiar reference to their wants. It touches their feelings and carries them more easily up to the Mercy-Seat. Thorough and relentless despisers of every species of cant, and commonly sensitive to sentimentalism, no class of persons will be found more readily and cordially to appreciate a kind word or a considerate desire in their behalf. Whatever the negligence of that external air which, in youth, is so often found to be the uncomely and graceless mask of honest gratitude and trust, they still like to know that their teachers care enough for their best welfare really to pray for it. Thoughtless and impulsive in their hours of social amusement, they are yet bound in esteem and affection to those set over them, who remember their troubles, sympathise with their conflicts and discouragements, and entreat God to bless their life, their homes, their friends, their studies, their reciprocal relations with their instructors, their bodies,

their sports. And, therefore, allusions to the passing events of their experience, to the little incidents of the community, and to their individual trials, if made in a manly tone and with some delicacy of expression, are apt to engage their interest, and aid the best impression of the service. The differing usages of sects, as well as early associations, will have much to do in determining the frequency and particularity of such allusions. It is of the utmost consequence to avoid what may provoke comments, excite curiosity, or raise so much as a question of taste. Undoubtedly those are everywhere the best public prayers which at once enlist the most entire and respectful attention, by their fitness, variety and earnestness, while they are being offered, and are afterwards treated with silence. For, in respect to worship, considered as a product of human thought or originality, silence is a higher tribute than the most approving criticism—except, perhaps, in those confidential intimacies where friends take sacred counsel together about the deepest things. And whatever the specific mention of the supplication may be, it will never be invested with so august a dignity, nor raised so completely above all cavil or levity, as when it can be put into some words out of the Inspired Book.

It is an interesting inquiry, what other exercises should attend the offering of prayer. But in this regard we apprehend there is already a considerable uniformity of usage, and that the simple schedule usually followed is not far from the best. Of course the Scriptures will be read. Here again let there be no formality. Let the passages be selected from different parts of the volume; and they may be profitably selected from almost every part of both the New Testament and the Old. Sometimes a consecutive passage, or even a short book, may be read on successive days, with a certain advantage in keeping up the connection in the narrative or argument. But sequences of that sort often fall, we have thought, into a kind of visible mechanism, which young men do not love. It looks like a saving of trouble, and they feel put upon. Further, the Bible is not to be read as if it were an exercise in elocution. The grand object is to bring out the meaning, and get it in contact with the hearer's soul, with as little showing of self as possible. Whoso has reached into the depths of the Bible's heart will read it well. Some men's reading of it is more original, more suggestive of new ideas, than some other men's sermons. And this is no disclaimer's device. It comes by a profound spiritual acquaintance with the inmost sense of that revelation of the mind of Christ. Whether brief remarks could be profitably thrown in, not to convey doctrine, but simply to uncover and explain the text, is worthy of consideration.

In some of our colleges the Scriptures and the prayer are accompanied by a hymn, sung by a choir, or, perhaps better yet, by the general body of the students. We are convinced the value of this addition cannot well be over-estimated. In all true, simple sacred music there is a nameless effect of good, against which few exceptional breasts are wholly steeled. It falls in with the better inclinations and hopes. It soothes irritability. It abates appetite. It shames meanness and lust. It assists the incipient resolves of the penitent. It comforts grief. It puts the whole mind into a more appropriate attitude for the prayer that comes after, unconsciously opening the hidden avenues by which heavenly blessings flow down to nourish the growths of character. Probably this effect lies more with the strain of harmony than with the words. Hence the greatest pains and discretion are to be used in fixing the style of the music,—seeking to combine the noblest practicable artistic with the purest religious expression, attaining animation without a florid movement, and solemnity rather than surprises or startling transitions. Operatic flourishes and complicated fugues are as much out of place in chapel as rhetorical confessions of sin. Chants, if there is patience enough for the discipline and practice, are more appropriate for praise than any kind of psalmody. If a hymn is sung, let it be a hymn. A hymn is not a chapter of didactics, nor a moral essay, nor a piece of reasoning, nor a precept, nor a creed, nor an exhortation, nor a narrative, nor a catalogue of virtues, nor an inventory of the animal and vegetable kingdoms. A hymn is an aspiration cast into poetical language. Its purpose is to stir devout feelings,—at the same time conducting the soul in a penitential or jubilant frame to heaven, and quickening within it those social affections of humanity which prove mankind to be of one blood, in one brotherhood, under one Father. Nor can any group of human beings be anywhere found in whom these sentiments may be often waked to a grander purpose than a band of companions, already associated in the little commonwealth and the intense politics of their academic economy, and destined soon to take central and commanding places in the nation, for Christ, or against him.

Recent debates, in many quarters, have broached the question whether congregational worship is not, in some sense, disowning its own name, by being practically the least congregational of any worship in the world. Even if the sacerdotal idea has gone out, a service confined exclusively to one officiating individual retains the priest. To what extent a liturgical practice might be advantageously introduced into our colleges, where men of all denominations are assembled, is a point to be determined rather by cautious and guarded experi-

ment than by preconceived opinion, or precipitate guess-work. We cannot conceive why such experiment should not be freely made, and conducted with forbearance and good-will on all sides. Among all parties there is, as we suppose, a common interest in finding out the best mode. Surely we can afford, at this time of day, to purify ourselves of the sectarian suspicion and the ecclesiastical narrowness which would reject the best, or refuse to search for it because it might involve the adoption of a neighbor's way, instead of the pursuit of our own. We confess ourselves inclined to believe that if the Scriptures could be generally read alternately, as according to the Hebrew parallelism, or responsively, between the minister and the congregation, in our colleges as well as in the churches, it would aid the whole object, by giving the laymen something to do, by enlivening the mind, by fixing the eye, by engaging two senses and a tongue in the service, instead of hearing alone. A free use of different methods is better than bondage to any one. Respecting the prayer itself, we feel very sure of this; it should be either expressly and obviously liturgical, or else be strictly extemporaneous, having the natural verbal variety of a spontaneous exercise. What pretends to be the latter, and yet consists of a familiar repetition of clauses, whether following in a certain order or not, is almost certain to become subject, at last, to unfavorable notice, and to fix upon the service a reputation of heartless routine.

Common sense and observation teach that the entire daily service should be short,—not extending over twenty minutes, altogether, at the longest. Fifteen are better than twenty. It is idle to attempt settling this matter by abstract notions, or to chafe at necessity, or to expect a promiscuous troop of boys, or men either, to be saints, and to keep positions of discomfort all the more quietly because they fatigue the limbs. Edification is the object, and edification should supply the rule.

And, as to the bodily posture, there is still occasion for experiment. It ought certainly to be uniform throughout the room. Sabbath assemblies may continue to affront decency, by the present mixed and vulgar manners, if they will; but in the decorum of a college or school such irregularity should be forbidden as an offence. If principles of absolute adaptation and correspondence were to govern the matter, there could be no doubt that the three appropriate postures for the house of God would be *standing during praise* (i. e., in all singing and the responsive readings of the Bible), *kneeling or inclining the head and body during confession and prayer*, and *sitting to hear the discourse*, or the lessons read, by the minister. In daily chapel services this order may be found impracticable, on the score of the maintenance of stillness, or the supposed necessity of keeping the persons of the pupils exposed to the eye of the government. Certainly the body during the prayer—the most important of the services—should have the greatest degree of ease consistent with a proper dignity, so as to furnish the least possible disturbance to the mind. Trifling accessories are not to be overlooked. Where it can be done, a palpable help would be gained to the silence, and thus to the just impression of the place, by some sort of carpeting on the floor.

The chief perplexities attending the subject arise from what was just referred to,—the connection of the devotions with the discipline. Just so far as it can possibly be accomplished, that connection ought to be at once and completely dissolved. That this has not been more generally done in our colleges betokens an indifference to the highest claims of religion, and the laws of the spirit, painful to think of. In this direction, as it seems to us, is the great call for reformation. The secular administration of a college is one thing, and should rest on its own legitimate resources. The worship of God is another thing, and should have no other relation to the former than that of a morally pervasive and sanctifying influence. The chapel is not a constabulary contrivance, nor the chaplain a drill-sergeant. The Bible is no substitute for a policeman's club, nor for a proctor's vigilance. In some seminaries, it would appear as if the final cause for prayers were a convenient convocation of the scholars, as a substitute for a roll-call. A spiritual approach to the Almighty Source of Truth should not be compromised by an extrinsic annoyance. If any students come to prayers reluctantly, their reluctance should not be aggravated by the additional odium of an academic economy put under a sacred disguise. Physical constraint should not thrust its disagreeable features unnecessarily into the sanctuary. And therefore such arrangements should be secured that, by classes or otherwise, the presence of the students on the spot might be certified at the given hour, independently of the chapel service.

On the other hand, one is easily satisfied that the attendance should be universal, and should be required; and also that entire order and a decorous deportment should be positively enforced under strict sanctions. These are indispensable conditions of any proper effect of the service, whether on the devoutly disposed or the reckless. Moreover, the reasons for them are plain, and find a substantiating authority in every human breast. Let the compulsion be exercised in a kind spirit, and be patiently explained. The reverence that demands it should be evident in the officer's own soul and bearing. Only, behind the rea-

sonable persuasion—a silent, retiring, but ever-present force—should stand the imperative figure of law, always in abeyance, but always there. And above all, as just urged, let not the cause of this compulsion be mixed up with a secular regulation, but depend on its own inherent rectitude and conformity with the Divine Will. The student is to understand that he must come; but then this "must" has nothing, to do with the local policy. It is the combined dictate of revelation of history, of human want and welfare, and of the ripest judgment of all wise men. So an external order must be maintained. The intrinsic right of the matter is satisfied in no other way. Disturbance, loud whispering, the furtive use of a book or pencil, a slouched dress, or a longing attitude, should all be prohibited at every cost. If the pupil pleads that his heart is not in the service, and that an outside compliance is an insincerity, the fallacy can easily be shown him. The rule comes to aid his deficiency, and disposes everything to facilitate an interested participation. Besides, there are others close by who are really and thoughtfully worshipping, entitled to decorous surroundings. There is not the least hostility to free and cordial devotions in such regulations. Every sensible man knows that his strongest and happiest and healthiest labors are braced up and kept in place by law. Every transition from term-time to vacation, or from professional tasks to purely voluntary ones, illustrates that. As we lately heard one of our most faithful and unremitting scientific minds,—one where we should have hardly suspected the existence of any such reliance, express it,—"Our most spontaneous studies have to be subjected to some form of constraint." We get our freedom under a yoke. Besides, the fundamental idea of a college or a school is that its members are "under tutors and governors;" and the success of every part of the educational process depends on the forming hand of law. Here, then, seems to be the true principle; the secular discipline of an institution has no right to subordinate the devotions to itself, nor to use them for its purposes; but those devotions demand a rational and gracious discipline of their own, in keeping with their dignity, and precise enough for their external protection.

Though perfect order, or the nearest possible approximation to it, ought to be insisted on, after the form of the exercise is determined, we held that Christian pains should be taken to remove every burdensome element and circumstance pertaining to it. A principal one is often found in an unseasonable hour. The lessons and lectures of college, especially when the numbers of students are large, require a long day. It is a common impression that the day should begin with public prayer. This often brings that service so early that the prayer-bell acts as a wrench to pull the reluctant attendants out of their beds. This is laying upon a duty, which needs every accessory to make it agreeable and attractive, a foreign and extrinsic load, giving it a bad reputation. We account it an irreverence to bring inevitable and superfluous dislike on any worship. Morning prayers should be held at an hour when every healthy student may be reasonably expected to be up and dressed. Otherwise, a habit of feeling and of speaking is gradually engendered incompatible with due veneration.

In Harvard University the experiment has been tried, within a year or two, of assembling for morning prayers after breakfast, and indeed at two or three different times, in the first part of the day. The result, on the whole, has been favorable to making the prayers the first exercise, before breakfast; and this appears to be the preference of the students themselves, both on the score of natural fitness and personal convenience. The subject justifies an extensive comparison of different judgments and experiences.

This seems to us quite clear, that whatever sacrifices of comfort, or effort of the will, this attendance may demand, the sacrifices and the effort ought to be borne by the board of government and instruction along with the pupils. With a few allowances, the prayers are indeed just as important for the one class as the other. If the officers are absent, it is at least natural that the pupils should tacitly ask why they are obliged to be present. The great law of voluntary self-denial comes into action here, as in so many of the relations of teachers to their scholars. Say what we will about universal principles, the ethics of a college and a school are peculiar. They exempt from no general duty, but they impose special and local ones of their own. The great universal principle is to do the most good in all circumstances. So sensitive are the moral sympathies of these seminaries, that a conscientious, high-principled Christian teacher will put away from him many an indulgence otherwise harmless, and cheerfully take up many a task otherwise needless, solely from a reference to the moral purity of those under his care, and in deference to that grand ethical law so nobly interpreted by Paul in the fourteenth chapter to the Romans. We are persuaded that very much of the present disaffection in these institutions at the exacted attendance would gradually disappear, if it were seen that the officers all regularly came of their own accord. Nor should they come merely to use an oversight of the under-graduates. That may be done incidentally. The prime purpose should be to engage honestly in the worship, to offer praise and supplication to the Lord of life, to learn that august lesson of faith and love toward Him, of whom "day unto day uttereth speech, and night unto

night sheweth knowledge," which is just as necessary for the strong and the wise, as for the weak and simple.

We come back from the details of method,—none of which can be insignificant where the end is so high,—to the spiritual forces involved, and the infinite object contemplated. God, who alone is true, has promised that he will hear the prayers of his people, and has conditioned the bestowment of his richest blessings on their being sought in singleness of heart. The history of our country is all bright with evidences how he watches over the nurseries of a pure learning, and from the very beginning has turned the seats of Christian education into fountains to gladden the wilderness and the city of God. "Such prayers as Dr. Dwight poured forth in the Chapel of Yale College, when, in the agony of his spirit, he wrestled with God, as well as struggled with men, for the victory over error and sin, never fail powerless on the ear of man or God, never fail to carry the worshipper into the very presence of their maker." Nor was it ever plainer than now, that the healing branch of devotion needs to be thrown into the head waters of popular intelligence to sweeten their bitterness. Intellectual pride, a cultured self-will, unbelieving science, literary conceit, all lift their disgusting signals to show us that the knowledge of this world is not to be mistaken for the wisdom of Heaven. Knowledge is power, but what kind of power? A power of beneficence or a power of destruction? That depends on other questions. For what is knowledge sought? To whom is it consecrated? Into whose name is it baptized? Let us save ourselves, if we may, from a brain developed only to be demonized, and from the delusion of mastering the secrets of nature only to be brought into a poor bondage to ambition. Knowledge is not sufficient of itself. Now, as of old, and forever, it must wait reverently on the Unseen, and kneel in lowly faith. Men may talk of the pure and passionless air of scientific research, of the certainties of scientific deduction, of the absoluteness of scientific conclusions, decrying, at the same time, the strife, and alterations, and fluctuations of theology, as if thereby to affirm some independence of thought on God, or some superiority of the understanding over the heart. It is an impudent comparison and an insane jealousy. Let them explore their own fallacies. Let them not confound theology and religion, nor the processes of science with its ultimate results. Let them read the biographies of scholars, and the history of thought; let them trace the course of the principal scientific discoveries within the last dozen years; let them acquaint themselves with the quarrels of authors, and the disputes of schools, and the gossip of cliques. They will soon find that petty contentions are not confined to ecclesiastical councils, though Heaven knows *their* air is too foul and vexed with them. They will see that everywhere the mind wants the guidance of God's Spirit; that education without piety is only a multiplying of the means of mischief; and that Christ came into the world as much to teach scholars humility, as to comfort the illiterate. No: those who say such things are not the strong friends of science, nor the true advocates of her dignity, but novitiates in her sacred tuition, and flippant champions whom she disowns. Knowledge and faith have one interest, one aim, one God and Saviour to confess and serve; and therefore over every step in education, every lesson in learning, every day of the student's tried and tempted life, should be spread the hallowing peace and the saving benediction of prayer.

Deep down in their souls students feel this. At least in their better moments they realize it. Even the most impulsive and inconsiderate have some dim, instinctive witnessing within them that it is good to call on God. Many an earnest believer has felt his first renewing convictions, the first strong grasp of the hand of remorse, the first touch of penitential sorrow, amidst these apparently neglected entreaties. The sure arrow from the Divine Word has there reached many a haughty and obdurate heart. The silent struggle in a young man's exposed nature, between early principle and fierce solicitation, has often received there the blessed help that secured the victory to virtue. Some germ of holy resolution has found nourishment, and light, and air to grow in. Some half-formed plan of dissipation or vicious amusement has there risen up in its hideous aspect, and been forever dashed to the earth and broken to pieces. Some yielding rectitude or chastity has been reassured and set on its blameless way again in gratitude and joy. Images of home have come before the closed eyes. The voices of mother and sister, of the affectionate pastor that childhood had revered, and of many a saint on earth or angel in heaven beside, have seemed to speak and plead in the simple, fervent petitions. Could the secrets hid in the hearts of educated men be revealed, we have no doubt it would be seen how large a part the college prayers bore in the initiation or the reinvigorating of their best designs. Many a man has there, in silence, said honestly and faithfully to his own conscience, "To-day I shall live more righteously; meanness and sin shall be more hateful to me, generosity and goodness more lovely;" and all the day has answered to the pledge. Admonitions, that would have been rejected if offered from man to man, work their effectual plea in the indirect persuasion of a request to the Father of Light. Noble friendships between young hearts have felt themselves more disinterested and more secure for the holy appeal to the Source of Love. The

noble claims of humanity, making each man feel himself a brother in the mighty fraternity, girding him to labor and suffer for his kind as the only worthy calling of his scholarly life, have there pressed their way into the heart of hearts, through a clause of that Bible that speaks to the rich and the poor, or a supplication for sage and slave alike, for bond and free, for the heathen and the helpless. Eminent servants of the best causes, disinterested patriots, preachers of Christ, missionaries to the ends of the earth, have taken there the first impulse that bore them on to their places of heroic action or martyr-like endurance,—faithful unto death, awaiting crowns of life.

Whatever appearances of neglect may attend the familiar repetition of these holy occasions, therefore, there can be no apology for discouragement. As in all coöperation with the vast, slow achievements of the Providence that predestines a spiritual harvest from every seed sown in faith, there must be an unhesitating continuance in well-doing, and a patient waiting, for results, on Him who is so unspeakably patient with us. Only let the prayers be real prayers; such asking as humbly refers each entreaty to the Supreme, Unerring Will, yet with the fearless trust that He who hears in love will answer in wisdom; let the things prayed for be such things as those then and there assembled most heartily desire, rather than such things as precedent or old tradition have decided it is merely proper to implore; let Christian care and painstaking be applied to the arrangements of the company and the parts of the service; let the intercessions of thousands of sympathizing and anxious homes throughout the land arise in unison; and then there can be no ground of doubt that God will accept our offerings, sanctify our scholarship, lead more of our young men to bring their gifts and attainments to the Saviour's ministry, uniting a broad culture with high aspirations and a profound faith in the structure of the civilisation that is to be. Then many a man who enters college only with a vague purpose to profit or to please himself, while there shall listen to a higher call, and become a cheerful servant of the King of kings. Then right-minded, pure-hearted youths will not find their collegiate course a perversion from integrity, nor a snare to principle, nor a ruin of honorable hopes, but confirmation of every worthy desire, and a progress in all manly living. Then the thoughts of parents will not turn to these institutions with regret, with maledictions, or with shame, but with confidence, gratitude and joy. Then the country will not be disappointed when she looks to the University as "the light of her eyes and the right arm of her strength." Then the most powerful agency that can be conceived will be inaugurated to make our literature healthful, earnest, humane. And then, not only by the motto of a seal, and not only in the pious hopes of its founders, but in the daily spirit of its administration, and in the characters of its graduates, shall each college be dedicated to Christ and the church.—*Abridged from the American Quarterly Journal of Education for September.*

Papers on Practical Education.

PRINCIPLES RELATING TO THE FORMATION OF CHARACTER.

Two things determine character, the ordinary current of thought when the mind is disengaged from special study, and the motives by which ordinary conduct is determined. A knowledge of these facts is a source of power. Observe an individual when off his guard, and note from his remarks and actions what are his ordinary thoughts and motives, and you know how to excite them at any time.

Endeavour to pre-occupy the mind with thoughts and principles that are true, beautiful and good. The Christian teacher can have no sympathy with that false sentimentality, which characterizes the indifference of the day, that would have the mind of youth uninformed—unprejudiced is the term—on great religious and moral truths and duties—An Authority which every one of our readers will acknowledge, has enjoined us "To train up a child in the way it should go." To effect this pre-occupation of the mind, the teachers must not depend on routine work; set lessons have not much power in altering the ordinary current of thought, he must carry his efforts beyond school hours and seek by all the means in his power—such as ingeniously devised home exercises to give a direction to the constant thinkings of his pupils; he must use his utmost efforts to preserve them from associations and companions that would fill the mind with what is base or impure, and he must supply such motives as would lead to right, generous, and noble conduct.

Every mind is marked by some distinguished peculiarity termed the pre-disposition, bent, or bias of the individual. A considerable part of a teacher's duty is to discover this feature. The play ground is the best sphere for its observation. This is the teacher's school of character. Observe that boy who always manages to be the driver of what he calls his horses—he is ambitious of power. You boy who separates himself from his companions, and is found so frequently

musing with a smile now and then playing over his face—is imaginative. That little West who sketches all sorts of things in his book, or on the walls, and among the rest, his baby-brother's face—is the future painter. The knowledge thus obtained is invaluable to the educator, who by means of this ruling power may obtain an influence which nothing else can give.

The tendency to imitation is proverbially strong in children. To it nearly the whole of early education is due, of which we may take as examples, the mastery by a child of its limbs and its attempts at language. The lessons suggested by this fact to the teacher are "Be what your children ought to be" "Mind what companionship they form." "In your teaching refer more particularly to good than to bad examples." "Remember that discipline is constantly promoted or injured by its operation."

The law of association is one of the most powerful in the formation of character. It is this which helps to give permanence to what would otherwise be evanescent, in conduct or teaching. By its aid, things become so connected in the intellectual and moral nature that on the occurrence of one the other may be expected. This is one of those things which invest the teacher's office with much of its responsibility. A single example may suffice to show the operation of this law;—Years after school life is over, the example of the teacher may come up as a palliation of some wrong, or as an incentive to some good.

The law of habit requires the careful study of the educator.

Repetition, one of its chief instruments, is an element in the production of every result in physical, intellectual, and moral development. No power is required, no facility obtained, no organ strengthened, but by repetition. It is to its aid we owe the power to form words and to utter them at will, without attention to the process while doing so. The infant's use of its limbs, and its power to hold itself erect are due to repeated efforts. The ability to repeat such a thing as the multiplication table, or to play a piece of music, while the mind is otherwise occupied is owing to previous practice.

In all subjects requiring mechanical skill, or intellectual exertion, the teacher must provide for a frequent repetition of the process. If he would have good writing his children must write frequently; if fluent and impressive reading is sought, a large amount of individual practice must be afforded. Physical laws require that the opportunities of exercising a given faculty until facility is obtained should be frequent rather than prolonged. In learning anything new, the stress of the attention very soon fatigues the brain; while the organs unhabituated to an operation are less able to sustain it. The practice of the drill-serjeant is founded on right principles and is worthy of imitation by the educator. Three times a day, to allow of intervals of rest, the recruits are put through their evolutions, each time lasting long enough to give a set to the organs employed, without being so long as to fatigue. Acting on this principle, our first lesson on a subject should be short and frequent; and generally lessons to an infant shorter than to the first class.

The influence of repetition on the emotions, and its relation to morals, are parts of the subject demanding the teacher's most serious attention. The tendency of repetition is to weaken the force of emotion. A man who has formed a habit of benevolent action *feels less*, at the sight of misery than one unaccustomed to it, but he will more readily step to its relief. Where appeals to the feelings or to the conscience are frequent, with no corresponding practice, both heart and conscience at length become indurated, and objects which ought to excite regard, and appeals which ought to have force, come at length to awaken no notice or to be regarded with indifference. Thus it is well known that readers of fiction, from having emotions excited to which there is no corresponding practice, become at length so callous to real distress, as to be utterly unaffected by it, and as to its relief—that never presents itself to their imagination as a possible duty. In like manner religious teaching, whether of the pulpit or the school, and especially the endless repetition of religious formularies or the memoriter getting up of Scripture truth, where not accompanied by right practice is injurious to the moral nature, an impediment to spiritual growth, or an obstacle to the individual's salvation. Every such repetition lessens the susceptibility of impression, until at length its much to be pitied subject is past feeling. Hence the religious teaching of schools shud be of a practical character, bearing on the daily life of the child, and especially on such points as come immediately under the teacher's direct notice and influence.

Another principle belonging to the law of habit is that termed *periodicity*. This is a tendency to resume the same mode of action at stated times. If we repeat any kind of mental effort every day at the same hour, we at last find ourselves entering upon it without premeditation, when the time approaches. Thus, if school studies are arranged according to this law, and each taken up regularly in the same order, a natural aptitude is soon produced which renders application more easy than by conducting the school as caprice may direct.—*Papers for the Schoolmaster.*

THE TEACHINGS OF THE EYE.

It is the wise observation of a French writer, who has given utterance to very much that had better never have been written or spoken, that "few men know how to take a walk;" by which I suppose him to mean, that few of those who go forth amidst all the glories of nature, profit as they might from the scenes presented to them. I quite agree with him; and could wish to make a few observations connected with the subject.

In the first place then, as it seems to me, every *wise* man will more or less, be an earnest observer of nature. How deep a student was David in that school! To him nature seems to have been a great depository, out of which he was every hour drawing materials for his own happiness and improvement. The storm and the sunshine; the moon walking in brightness; the sun rejoicing as a giant to run his race, and sinking to rest in the golden West; the cattle on a thousand hills; the labourer going forth to his work, and returning to the repose of the evening; the rain descending on the new-mown grass; the fruitful field, the golden harvest, the snow on the mountain-top, and the deep fountains of the valleys beneath,—are all subjects on which he loves to expatiate, and he evidently walks among them as the delighted spectator of a theater of wonders, almost as much may be said of him whom I may call his more philosophising and practical son. What a watcher had Solomon been of the ant in her many chambered mansions; and of all the world of plants from the cedar of Lebanon to the hyssop on the wall! And so the Creator, when the world first proceeded from his glorious hand, is described as looking upon it with evident delight, and pronouncing it to be "very good." What poetry is there in the expression, "Let there be light, and there was light!"

How full of imagery drawn from nature is also the language which God is pleased constantly to put into the mouths of his prophets. And thus, also, in the New Testament, the sparrow falling to the ground, the lilies of the valley, the fields white with the harvest, are objects of His notice, and are called in as images to illustrate and adorn His lessons. I need go no further. He who would follow in the footsteps of the holiest of men, and of their glorious creator himself, will be a careful spectator of nature. He will be far from hurrying through its scenes without feelings of admiration and delight. In fact, what an injury do they inflict on themselves who shut their eyes on the beautiful volume which the Lord of heaven and earth has thus thrown open to them. Other beautiful objects, the works of man, the treasures of human wisdom and art are locked up in the museums of the rich and great. But Nature is the universal treasure-house, to which the peasant has as free access as the king. How delightful for the man shut up during the hours of daily toil in the hot and crowded city, or in some low and smoky cottage, to be at liberty to escape for a moment to the green meadow or the shining river, to watch the last ray of the sun, to see the stars kindling in the heavens, till, at last, night spreads out the "brave overhanging canopy" spangled with ten thousand stars.—*Conn. C. S. Journal.*

SCIENTIFIC ILLUSTRATIONS IN SCHOOL.

The unparalleled progress which the arts are now making, and the intimate dependence of these on experimental science, have given to this latter an importance well known to every intelligent mind. Never before in the history of man has every branch of agricultural, mechanical, and commercial industry received such impulses from this source. Through all the wide range of the arts we can scarcely point to a single department which has not within a short period received important aid from experimental researches in science. Such being the fact, it becomes a matter of importance, that every lad who enjoys the blessings of even a common school education, should receive at least some general instruction in reference to those laws by which the changes in matter are governed.

But how shall these instructions be best given? Can books or oral instruction alone convey to the mind of the scholar a clear understanding of the facts in Nature? No doubt some minds, possessed in a remarkable degree of the power of applying principles, would find the hints given by such sufficient for directing their observations of natural phenomena; but with the majority it requires at least a miniature application in order to so elucidate and fix the principle as to make it of any practical utility. A boy, for instance, may study and commit the whole theory of the action of the barometer, the siphon, or the fire-engine, without a tinge of that comprehension of the cause of their operation which a few well explained and successfully performed experiments with the air-pump would afford. So of the theories of electric induction, the electric telegraph, the refraction of light, &c.,—all are far more readily and satisfactorily comprehended by a few appropriate and well performed illustrations with an ordinary philosophical apparatus.

I say *well performed*; for a bungling, imperfect mechanical illustration of scientific principles is oftentimes worse than no illustration at all. And on this point allow me to dwell for a moment. While

all intelligent teachers admit the advantages of experimental illustrations of science, few comparatively regard the *successful* performance of such, as an art requiring attention, ingenuity, and a certain degree of mechanical skill. To suppose that every teacher who has studied in a general way the principles of philosophy, astronomy, or chemistry, can go at once before his classes and illustrate with an apparatus these principles, is as absurd as to expect a successful performance upon a church organ from a mere reader of Mozart's compositions. Apt illustrations with instruments, require experience and a due degree of attention. The demonstrator of science who views illustrations with philosophical machines, as he does the production of music from a crank organ, will find himself sadly disappointed in the trial. In illustrating the properties of liquids or gases, for instance, no machines will give satisfactory results in the hands of an indifferent, inexperienced manipulator. In each, there is a score of nice contingencies to be regarded, which only careful observation and experience can remedy.

To operate a nice air-pump as if it were a common water pump, or an electric machine as we would a grindstone—to disregard the extreme tenuity of gases, or the subtle nature of such an agent as electricity, is to insure disappointment and failure. To be sure, some of the coarser and less intricate illustrations may be produced by almost any one, but the nicer and more attractive experiments require experience and skill.

Not understanding *how to allow for results* is often a cause of failure. In the use of the mechanical powers, for instance, the theory as taught in works of natural philosophy, does not regard friction or inequalities in the density of the parts of the levers; accordingly, upon the application of weights to the arms, there is found to be a discrepancy between the theory and the actual result, requiring a little exercise of skill to obviate.

One experimenter will perform an entire course of pneumatic experiments without the slightest accident to the apparatus or failure in the illustrations. Another with the same instruments finds that the receivers do not fit to the pump-plate,—that the stop-cocks leak,—that the glass of the water-hammer is too thin,—that mercury and acids have found their way into the air-pump, where they ought not to; and so each instrument seems imperfect, and each illustration proves a failure. In chemistry, too, the sad results of a want of skill are still more obvious.

Confidence, says Lord Bacon, lies at the two extremes of knowledge. This is especially the case with illustrators of science.

No teacher is qualified to use even the most simple philosophical apparatus before his classes without some previous preparation; and no successful teacher of natural science will fail to exercise his ingenuity and avail himself of the means within his reach, for rendering attractive and impressive the facts he would teach.—*Massachusetts Teacher.*

ART SCHOOLS IN SWEDEN—GYMNASIUMS.

Mr. Brace, an American, travelling in Sweden, writes as follows:

"In a small Swedish town, you find an evening school where mechanics can learn drawing, modelling, or the practical application of the natural sciences, without any expense. I visited one in Stockholm, in which Mr. Siljestrom is much interested, which was truly a 'School of Art.' There were in it beautiful plaster models of Greek sculpture, and bas-reliefs of Italian statuary, and of the best of Danish bas-reliefs—than which modern art has nothing more pure and classical—beside plaster casts of heads, fragments of limbs, mathematical blocks and architectural ornaments, from which to draw and to model. An original device struck me here, of natural forest-leaves arranged to draw or mould from. All this with lessons and teachers in the arts, lectures on chemistry and the sciences, is open every evening for laboring men and women. The consequence is, as in France, you have a class in Sweden which America has not, of *artisans of taste*—artistic mechanics, men and women, who show ingenuity and a tasteful originality in the manufacture of furniture, the decoration, painting, and frescoing of rooms, the making of common ware and implements."

Another point in which Mr. Brace acknowledges the Swedish school-system superior to that of America, is in the advantages offered to mechanics and laborers. In the United States, Boston and New York are the only places where schools of art have been established, and there, we believe, only for female pupils. At Gottenburg he visited one of these schools for mechanics:

"The *Chalmerska Skolan* is a higher class of school, being a kind of polytechnique school for laborers and mechanics. Here drawing and modelling are taught, and various natural sciences. There are laboratories, and well-furnished rooms of philosophical instruments connected with it, together with a reading-room. The whole is free for working men! An institution so enlightened, neither New York nor Boston yet has. I visited another school, principally for teaching drawing and designing, intended for the same class.

GYMNASTICS IN SCHOOLS.—“This gymnastic system is a regular medical system in Sweden. Prof. Ling has an elaborate treatise on it. I found the treatment in much use for nervous, bilious, and dyspeptic disorders, both among men and women, the most intelligent people having great confidence in it. Our public schools in America ought to be up with this step in education. Every Ward School, High School, or school of any importance, should have its *gymnasium*. Of all nations in the world, ours, with its intense and constant stimulus to the nervous system, needs the balance of healthy exercise for the muscular. Children are growing up puny, and nervous, and delicate, most of all, perhaps, for the want of such training during the time when their brains are in most constant activity. Mr. Barnard, of Hartford, Ct., one of the great reformers of our common school education, is deeply interested in the subject, and has models and plans of the Swedish implements and machinery for this purpose. The introduction of a good method of physical training might change the whole bodily and sanitary condition of our growing population.”

LESSONS FROM NATURE.

It is a very important part of a teacher’s duty to give daily instruction, not only in the studies of the school, but in those things which pertain to character. The teacher that is worthy of the name must encourage all virtue and discourage all vice. He must stimulate the young to industry, enterprise, and manliness; and, like a skilful gardener, check, at the outset, the seeds of pride, vanity, deceit, falsehood, selfishness, anger, and malice. This cannot be done so much by formal lectures or sermons, as by pertinent and appropriate remarks that interest and please the scholars. How, then, shall teachers make such instruction interesting to their pupils.

No suggestions will, of course, be of any avail to a dull, plodding pedagogue; but to active, ingenious teachers, whose hearts are in the work, and whose great delight is to improve their pupils, I would suggest that they may derive great assistance in enforcing their instructions by calling in the aid of Nature, illustrating their lessons by the lessons of Nature. Nature is not only beautiful, but *illustrative*. She gives lessons in order, in industry, in all the virtues.

“Go to the ant, thou sluggard, consider her ways and be wise.” As Solomon passed by the field of the sluggard and derived instruction, even so now the teacher should interpret to his pupils the instructions which the fields and gardens of the sluggard afford. What a lesson does every ripe apple give! And so, too, blasted fruit,—what a lesson to idle, vicious scholars! When teachers, parents, look for ripe fruit, they yield blasted fruit!—“*wild grapes for grapes!*” The sun that ripens corn should surely see some fruit in us, especially in the young.

The Great Teacher gave interest and variety to his instructions by his familiar allusions to Nature. The “lilies of the valley;”—“fowls of the air;”—“the barren fig tree;”—“the sower that went forth to sow;”—“the vine and the branches;”—“the shepherd and the sheep;” all made his instructions instinct with life, beauty and force.

One great advantage in going to Nature is, that the teacher will have original and fresh illustrations. It will relieve his instructions from the formal air, so repulsive to the young, and also to the old. It is not needful that medicine should be bitter to the taste in order to have a good effect. Advice and rebuke, like nauseous pills, may be so administered often, as to afford delight instead of disgust. The scholars, too, in this way, learn to notice and read Nature for themselves. Their minds are improved and taste cultivated, as well as hearts made better.

All teachers will not, of course, be successful in teaching from Nature, but I think most teachers might derive much more aid from Nature than they do, if they would only look at Nature themselves, and try to read and interpret her lessons, which are new and fresh every day.

To the dull, the idle, the heedless, Nature is blank and dull. While the inquiring mind will find not only beauty and science, but also instruction and wisdom, even as there are “tongues in trees, books in the running brooks, sermons in stones, and good in every thing.”—*Massachusetts Teacher.*

NOTES OF A LESSON ON THE TONGUE.

I. *Institution.* II. *Language the great distinguishing peculiarity of men.* III. *Bible description of the tongue.* IV. *Evil effects arising from a wrong use of the tongue.* V. *Good results arising from a right use of the tongue.* VI. *Application.*

I. When the class is perfectly quiet, commence by telling the children that “for every idle word we speak, we shall have to give account.” Show that the emphatic word is *idle*, not blasphemous, untrue or unkind words, but what the scriptures designate as idle. Illustrate what is meant by an idle word, and show how necessary it is, that we should drink deeply of His spirit of whom it was said, “Never man speak like this man.” Lead them to see how important it is, that we should set a watch over the door of our lips that we offend not; for that which cometh out of the mouth defileth a man.

II. Draw from the children the great distinguishing peculiarities of man, which place him above all other animals, and show that as God has endowed him with such gifts, he has destined him for a high position hereafter, and that consequently he should express his gratitude in the words of David, “Awake! O my Glory! (tongue) I will praise God with the best member that I have.” Show that as the possession of language is a blessing, so the absence of it, and the inability to understand it, have been punishments, as in the case of the Baptist’s Father, and the builders of Babel, and show how God in mitigation of this, enabled the Apostles, by Pentecostal blessing, to speak various languages, without learning them, that men might hear in their own tongues the works of God. Illustrate the prophecy of Isaiah, “The tongue of the dumb shall sing,” by reference to the miracles of Christ.

III. Draw from the children the various names which are applied to the tongue in Holy Writ, viz.: 1. A fire. 2. A world of iniquity. 3. An unruly evil. 4. My Glory. 5. The best member that I have. 6. A little member. 7. Tongue of the wise is health. 8. Choice silver. 9. A tree of life. 10. The pen of a ready writer. Next, the character of the tongue. 1. Boasteth great things. 2. Defileth the whole body. 3. Sets on fire the whole course of nature. 4. It is set on fire of hell. 5. Full of deadly poison. 6. No man can tame it. 7. Life and death are in its power. 8. Separateth chief friends. Illustrate each name and character.

IV. Show the evil effects which have arisen from an unbridled tongue. Draw from them instances from the Bible to illustrate these, viz.:

(a.) Boasting—Nebuchadnezzar, Pharaoh, Goliath, Sennacherib. (b.) Scoffing—Children that mocked Elisha, Joseph’s brethren, Jews at the Crucifixion. (c.) Blasphemy—The sin of Shemith. (d.) Cursing—Shimei, Peter. (e.) Lying—Esau, Gehazi, Ananias. (f.) Speaking hastily—Jephtha, Herod. (g.) Complaining at troubles—Job, Job’s wife, Israelites. (h.) Giving bad advice—Herodias. Picture out the various ways in which children at school may sin with their tongues, such as talking during a lesson, particularly a Bible lesson, calling each other unkind names, speaking hastily when provoked, boasting as in Psalm xii. 3, “Are not our lips our own?” Show them that in the abundance of words there is sin, and that persons who are very fond of talking, are not always very particular as to the truth of what they say.

V. Show how, and contrast the good which may result from, a right use of the tongue, viz.: (a.) Preaching the word—All the Apostles. (b.) Religious teaching—Eunice. (c.) Blessing—Isaac. (d.) Comforting the afflicted—Ruth, Jesus, Jews with Mary and Martha. (e.) Giving good advice—Pilate’s wife, Joseph. Show how good a word spoken in season is; it is like “apples of silver in pictures of gold.” (f.) Praying—David, Jesus. (g.) Singing God’s praise—David, Miriam. (h.) Eloquence—Aaron, Paul, Apollos. Show that we may use the tongue aright, when we talk of Jesus one to another, for Malachi says when speaking of such, “They shall be the Lord’s when he comes to make up his jewels.”

VI. Tell the children they should think twice before they speak once, and show that a child’s character may be discovered by his words. Contrast the talking rash Peter, with the quiet thoughtful John. Tell them their speech should be seasoned with salt, and prove that it is wrong to use such expressions as, “upon my word,” “upon my life,” etc., but that their communication should be “yea, yea,” “nay, nay.” Show that God loves a quiet character, “A meek and quiet spirit is in the sight of God of great price.” The most distinguished saint in the Old Testament was Moses the meek; and in the New Testament John the beloved, the one spoke to God face to face, the other was the friend of Jesus’ bosom. Tell them by our words we shall be justified, and by our words we shall be condemned, and conclude by calling attention to the text, “There is not a word in my tongue, but lo! O Lord, thou knowest it altogether.”—*The English School and the Teacher.*

Miscellaneous.

THE SYMPATHY OF NUMBERS FOR GOOD OR EVIL.

The sympathy of numbers is a mighty agent either for good or evil; by it the criminal and the vicious are hardened and confirmed in their iniquity; because of it the banditti are more bold, more cruel, more bloodthirsty than the solitary footpad or individual highwayman; because of it our large towns exhibit the greatest amount of crime and depravity, and these again are found in certain districts, and thickly populated, notorious localities. In populous towns and cities it is that “riots,” “demonstrations,” “strikes,” &c., are originated and conducted; because of its influence, unions are formed, societies are constituted. “Unity is strength” is a proverb which owes its truth solely to the power of sympathy of numbers. Ask the statesman the value of a “full house” when delivering his oration; the lecturer the influence of a crowded assembly; the minister the advantage of a large congregation. What nerves the soldier’s arm to

strike the dreadful blow? What spurs his courage and resolve to rush into the heart of battle, at the risk of life? The presence and sympathy of his brother warriors. What urges the racer in his onward course, and lends him wings to reach the goal? The cheers and encouragement and sympathy of those who witness his efforts. Of this most powerful and valuable influence the training system takes advantage in the education of the young. Who has not witnessed the ardour and excitement of a band of children engaged in some healthful and invigorating game, and how bold and spiritless the efforts of one or two. In this latter case they need the sympathy of companions; there is no emulation, no spur, to enable them to enlist their energy and soul into the play.—*Wray's Sabbath School Teacher.*

TWO MILLIONS OF TONS OF SILVER IN THE SEA.

Recent experiments of scientific men have led to the conclusion that the ocean holds dissolved two million tons of silver. To three French chemists the discovery is due. They took gallons of water from the coast of St. Malo, a few leagues from land, and analysed it in two ways. A portion of the water they acted upon by the usual tests upon silver, and the presence of the precious metal was clearly ascertained. The remainder of the water they evaporated, and the salt they obtained they boiled with lead.

This gave them a button of impure lead, which they subjected to what is called cupellation. The button is placed upon a little tiny saucer made of lime and is submitted to sufficient heat to melt the lead, but not high enough to effect the silver, should any be present. The lead soon begins to melt, and, as it melts, it is sucked up by the porous little saucer or cupel, it grows smaller and smaller until no lead remains, and in its place is a little brilliant speck, far brighter than the boiling lead. The cupel is then removed from the fire, and as it cools the red hot sparks cool too, and you have a homeopathic globule of silver. The operation is very simple, and is the ordinary mode of procuring silver from the ore. Analyses are being made in this way, every day at the Mint. When the presence of silver is doubtful, the work is most exciting. I saw an English ore so tested the other day, and after a few minutes of anxious watching, come forth a bright spark about the size of a pin's head, for which our eyes were longing.

Again and again our French friends repeated the experiment with the same success. Then they sat down and made the calculation that a cubic mile of ocean contains two pounds and three quarters weight of silver. After this they made another series of experiments: they gathered sea weeds, preferring those known to botanists as fuci; because, as those plants have no roots to insert into the rocks, they must derive all their aliments from the sea. These they realized, and found them twenty-six times richer in silver than the water itself. The results attracted the attention of an English chemist, Mr. Frederick Field, who is engaged in assaying silver in Chili. They induced him to commence a course of experiments upon the copper or yellow metal with which the hulls of vessels are sheathed. His knowledge of chemistry told him that, if the sea contained silver, he would in all probability find that metal on the bottoms of vessels that had been at sea.

He soon had an opportunity of testing the correctness of his surmise. The *Ana Guimaraens*, a large vessel near Coquimbo, where Mr. Field resides. The ship had been seven years at sea, and trading the whole of the time in the Pacific Ocean; so that if silver existed in any ship's bottom, it certainly would in the *Ana Guimaraens*. A few ounces of the metal sheeting were taken, and after a careful analysis, Mr. Field obtained from 5,000 grains a trifle more than two grains of silver, which is equal to one pound one ounce two pennyweights fifteen grains in the ton. There was no yellow metal on board the ship by which a comparison could be made with that which had been exposed to the salt water. But shortly afterwards another vessel came into dock, and from her cabin a piece of metal was taken which had never been exposed to sea water, and another piece of equal weight was removed from the hull, which had been three years afloat. The metal from the hull yielded eight times as much silver as that taken from the cabin.

The curious discovery of sea-water silver gives rise to one or two questions. Where, for instance, does the silver come from? Has it been extracted from the earth by artificial means, the waste of man's diggings, borne to the bosom of the ocean by rivers, which, like giant arteries, burst from the heart of the earth?

One experiment leads to another. If the sea could be made to yield silver, where might not the metal be found? The wood of the oak, birch, beech, horn-bean, aspen, apple and ash, grown at long distances from the sea, and which had never been manured with salt or sea-weed, has been burnt, and in the ashes silver has been detected. But if plants contained silver it was not difficult to infer that it existed also in animals. This was proved to be the case by an experiment which brought these remarkable researches to a triumphant conclusion. An ox was sacrificed to science, and in his blood was discovered the same valued metal.

The explanation of these phenomena is not very difficult. The sulphide of silver, or silver in combination with sulphur, is very

widely diffused in nature. Salt water attacks the sulphide and converts it into chloride of silver, which it dissolves by the agency of common salt. So also, the common salt contained in the water of the earth acts in a similar manner, dissolving out small quantities of metal, which it carries off and transfers to plants, and from plants it is received by animals in their food.

What the value of the discovery may be, remains to be proved. Wiseacres may shake their heads, and pronounce it useless. But if no attempt be made to turn it to account, one of two things will be clearly shown; either that silver is not so scarce as some people would make us believe, or else we can do very well without it.—*Household Words.*

"LOOK STRAIGHT IN MY EYES."

We know an earnest mother who never attempts to make an impression on the mind of her little ones, without directing them "to look straight in her eyes," when she is about to say what she wishes them to understand and remember. The pouting lip, the visage wrinkled with anger, usually vanish before her searching look; and if the veracity of the child is doubted, when brought eye to eye, it is no easy matter for the little guilty one to look steadfastly into that mother's eye and stand firm to a falsehood. But the more common purpose to be effected is to gain the entire attention, in order to make a lasting impression upon the mind. No subject is more important in the teacher's entire vocation, than this securing the undivided attention of the pupil. Its necessity will be obvious to any intelligent mind on moment's reflection; but long experience tends more and more to bring out, in bold relief, its real value in the child's improvement. We have seen a teacher laboring hard to explain to a class a difficult point in the lesson, while one member was trying his agility to catch a fly, which had rashly ventured within his reach; another was bending a pin to hook into his neighbor's trowsers, as if to nab a whale; another was balancing a pencil on his forefinger; and a fourth was chalking his neighbor's back. A teacher must have rare skill to be able to make instruction profitable under such circumstances.

Whether in teaching the branches of *study*, or obedience to rules pertaining to *order*, it is indispensable that the teacher require the pupil to "look him straight in the eyes." It is deemed a breach of etiquette by many, that a person should not look the individual addressing him in the eye, while speaking. It should invariably be deemed a breach of good order, of respect to the teacher, and a violation of the rights of the class, for any member not to give entire, undivided attention to the pupil who is reciting, or to the teacher, while explaining a point or process to the class. Let this be done and there will be no time for trifling, or improprieties, during a recitation hour.

But hark! I seem to hear an objector among the pupils say:—"I've got the lesson; I know it all." That is very well, Thomas. I am glad to hear it. But can't your teacher present the subject in some new aspect, so as to give you a clearer idea? If you have such a teacher as you ought to have, although you are the best scholar in the class, "you may learn something to your advantage" by listening to your teacher. At least it must be a gratification to know as much as your teacher, even if you find you cannot learn any thing new.

But to an inquiring mind, full of zeal in search for knowledge of every kind, it should be a field worthy of cultivation, to trace the operations of the different minds in the class, on the same lesson. While you have been soaring over it like an eagle, your class-mate John, over there, has been groping along like a poor blind man by a wall; or you and he are like the cat and tortoise in a race. See there, how *impatience* blinds the perspective faculties of Will Go-ahead; how a blunder cheats Jim Careless out of success; how Tim Trifler "can't see into his lesson at all," because he is after "small potatoes over there." Thus you may learn to appreciate your own high position, and receive stimulus to avoid their errors, and rise still higher.

Such knowledge is called the knowledge of human nature,—the very best foundation and acquisition for a business man.

Little children must be taught this habit of attention while their minds are peculiarly susceptible. But their endurance is small, and they must not be taxed for a great length of time, at once. Still they should be exercised according to their strength, and thus their strength will rapidly increase.

There are many ways of making the pupil "look straight into the teacher's eyes," or, in other words, of giving entire and undivided attention to any object or duty.

1st. Every scholar should have something to do during every hour of the day, and should be required to do it in that hour. *Study hours* should be study hours, nor should the teacher be indifferent whether they are strictly observed or not. If the teacher is indifferent, the pupils certainly will be, and almost unblameably so.

In recitation hour, let it be a fixed law in your class, that each pupil shall devote his whole attention to the explanation of the teacher, or the recitations of the other members of the class.

Never, under any pretence whatever, allow playthings, indeed

anything, to be brought into the class, except what is to be used in the recitation, legitimately belonging to it. In short, let every scholar feel that the exercises of recitation are enough to tax all his powers; especially it be add to these suitable care that his manners be appropriate to the occasion and the place, whether he be sitting or standing, walking across the room, or working at the blackboard.

Here is the place for the cultivation of good manners, as well as arithmetic or grammar.

One word more to teachers of intermediate and primary schools, on a point akin to the foregoing. Teachers can never be too particular in preventing their little pupils from bringing *playthings* to school. More evils grow out of this practice than can easily be enumerated. The time of the pupil which they occupy, in diverting the mind from study, is not the least. The practice of *trading*, which inevitably grows up from their introduction to the school premises, leads to more deception, pilfering at home and abroad, and falsehood, than almost any circumstance in the school. To an experienced teacher this subject needs only to be mentioned to be appreciated; to a young and inexperienced teacher, we can only say, resist this evil with all your skill and power, as one of the most important objects of your vocation. It will present itself in the path of every teacher; and the failure of many a school, and the loss of reputation of many a teacher may be traced to a neglect of this practice of filling the pockets, the hands and minds with objects foreign to the school.

—*Massachusetts Teacher.*

A. P.

ciation, Mr. Alexander (who was formerly a most efficient local superintendent of schools) thus proceeds:—

"Let nothing, gentlemen, damp your ardor in upholding our National School System, which has been framed and introduced with so much ability and judgment. In giving education to the young (I mean in its highest sense,) we leave the richest legacy which one generation can give to another. Let us make every sacrifice to secure the best minds of our country for our public teachers, and in addition to all the other branches of knowledge, let the element of agricultural and mechanical science be taught in our more advanced schools, which if only to a limited extent, "will be sowing the first seeds from which an after crop will spring up." But above all let us uphold our great depositaries of science and learning—I mean our academic and collegiate institutions. To them it is we must look for that higher mental discipline, which makes the pathways easy to the great "ocean of knowledge and truth." The chairs of our universities are at this moment filled by men of the highest attainments, while Professor Buckland, who has the department of agriculture, unites to his other qualifications an intimate knowledge of the best practices of British Husbandry.

But above all, it is important that the Canadian character should be formed and moulded after the noblest models—and be imbued with the virtues of the races from which we have sprung; for if we wish to see our country accomplish its highest destinies, we must have loftier objects of ambition than the mere attainment of wealth. It was observed of Britain by an American statesman, that the sun never sets upon her dominions; that her morning drum beat, following the sun and keeping pace with the hours, encircles the earth with an unbroken strain of the martial airs of England. The immensity of her wealth, and the extent of her dominions have been powerful instruments in her hands to accomplish good.—But where are we to look for the real element of her greatness? In the soundness of heart and principle pervading the great mass of her people. While luxury has never palsied her enterprise, her sons have contributed largely to the treasury of science and art, and to the general enlightenment of the world. Her wealth—her energies—and her strength have been devoted to some of the noblest objects. She has given liberty to the slave, and has been the messenger of the "glad tidings of peace from pole to pole."

Shall it be said that our Canadian soil is unfavorable to the growth of intellect and genius, and of those virtues, which have cast so bright a halo around the parent country? Who can behold our Township and County Libraries, which have so justly been pronounced by Lord Elgin, "the crown and glory of our institutions," carrying to every one's door the accumulated wisdom of ages, or witness the earnestness with which, throughout our rural districts, the great mass are anxious to further every good object, and not feel inspired with the hopes of a bright future? But we must guard the young against the shoals and quicksands which beset their path—unfold to them the higher enjoyments of the mind, which will elevate them—give them self-respect—and enhance the value of their other possessions. Teach them that a nation's honour is a nation's greatness—and that its true greatness consists in the virtue of its citizens—but above all we must teach them that it is to the bounty of an all merciful Providence that we are indebted for all the blessings we enjoy."

On the afternoon of Thursday a public dinner was given by the Association. His Excellency Sir William Eyre, was present and responded to a toast. Among others, the toast of "The Educational Institutions of Canada" was given by the President, and enthusiastically received.

Dr. McCaul, having been called upon to reply, rose and said:

The subject upon which he was called upon to address them was of so great importance, and of so wide a range, that his principal difficulty in complying with their request would be, to confine his observations within those narrow limits which are suitable and necessary on such an occasion as the present. When he claimed for education that it was a subject of great

JOURNAL OF EDUCATION, Upper Canada.

TORONTO: NOVEMBER, 1857.

* Parties in correspondence with the Educational Department will please quote the number and date of any previous letters to which they may have occasion to refer as it is extremely difficult for the Department to keep trace of isolated cases, where so many letters are received (nearly 600 per month) on various subjects.

EDUCATIONAL FEATURES OF THE PROVINCIAL EXHIBITION, 1857.

The Upper Canada Provincial Exhibition for this year took place in Brantford, on the last days of September and the first days of October. As already intimated in the circular from the Educational Department, published in the Journal of Education, arrangements were made to contribute to the Exhibition various specimens of the School Maps, apparatus, agricultural works, &c., which are supplied to public schools and municipalities from the Depository in connection with the Department. For a description of this interesting feature of the Exhibition we refer to the accompanying extracts from various local papers. At the Exhibition the opinion expressed was unanimous as to the value of so complete a collection of school requisites, and as to their influence in promoting the efficiency and attractiveness of the public schools. In the introductory remarks of George Alexander, Esq., the President of the Agricultural Association, at a preliminary meeting of the association, he thus referred to the educational contribution to the Exhibition: "He (Mr. Alexander) wished to direct their attention to the excellent exhibition made by the Educational Department. Our school system was one to be proud of; it had been based upon information collected by Dr. Ryerson, from all parts of Europe, and he trusted that the farmers present would urge upon their trustees the necessity of availing themselves of the valuable books, instruments, and other articles provided for their use by the Educational Department."

In his more formal annual address as President of the Asso-

importance, he was not apprehensive that any of those who heard him would suppose that he was induced to overrate its consequence by the predilection, which it was natural that he should have for a department, to which he had devoted the larger and the better portion of his life. No, I feel persuaded that the justice of the estimate which I have formed of it will be recognized by every one who knows a father's anxiety for the welfare of his children, by every one who feels a patriot's desire for the prosperity of his country.

Education is in truth the great instrument of social advancement—an essential element of national greatness. What but education has enabled so many men of humble origin and of straitened circumstances to overcome all the difficulties of their position—to snap the bonds of that poverty which held them down—to surmount all the impediments of want of funds and want of friends, and want of influence, and to raise themselves by their own exertions to those elevated stations which they have graced by their talents? The history of our parent isles is full of such examples; the annals of the neighbouring republic present a multitude of similar instances; nor has Canada, young though she is, failed to produce noble specimens of men, whose talents and attainments as developed by education have been their only passport to the distinction which they have won.

What but education, again, supplies the civilized nations of the earth with the men that are required to direct and manage the different parts of the complex machinery of society? What but education furnishes competent Statesmen, Legislators, Judges, Magistrates, the members of the learned professions, and others, who are called on to take leading parts for the benefit of the community? Nor let it be supposed, whilst I insist thus strongly on the benefits of education, that I am forgetful of those worthies who have accomplished great things without its aid. No, I most willingly bear my testimony, that there have been—that there are men amongst us, who, without the advantages of education, have discharged their respective duties with honor to themselves and with benefit to their country, and of whom it may with justice be said, that it will be well indeed if their sons with all their knowledge and training will be able to tread in the footsteps of their fathers. But whilst I thus gladly pay the tribute which is due to the force of natural ability and the power of vigorous self-reliance, I must at the same time observe, that such are the exceptions and not the rule, and that of those very men, who have under such circumstances achieved success, there is not, perhaps, an individual who is not most anxious to secure for his children the possession of those advantages, the want of which was felt by himself as injurious in almost every step of his career through life, however successful it may have been.

But it may be said—the general importance of education is admitted on all hands—what we want to know is,—of what special importance is it to Canada?

Permit me then briefly to reply to this inquiry. It will, I think, be generally admitted, that the people of this Province are possessed of a degree of civil and religious liberty, such as is enjoyed in few countries, and surpassed in none. Now, sir, what security have we that these powers will be judiciously or properly used, if education has not extended the information and strengthened the judgment of those who have to use them? What security have we that these privileges will be exercised consistently with the welfare or with the safety of the community, if education does not protect our people from being misled through ignorance or duped through credulity? But there is another and a very marked characteristic of this country, which it is proper that I should mention as tending to prove the importance of education amongst us. During the last few years Canada has made an almost unexampled progress in material prosperity. In produce—in stock—in manufactures—in revenue—in resources—she has advanced with the buoyant step and rapid pace of vigorous youth. In the abundance of the necessities—the comforts—the luxuries of life, she is on a par with nations ten times her age. In population she has increased at a rate which equals, if it does not surpass that of our neighbours and friends on the other side of the Lake; whilst in the magnitude, the solidity, and the import-

ance of her public works, she rivals the foremost nations of the old world.

Truly, the contemplation of Canadian progress presents an astonishing spectacle.

A few years ago the Chief Justice of Upper Canada stated that there were men then living—and it is possible that they may be still alive—who could remember the time when there was not a single cultivated farm within the limits of this Western Province. And what have we now, Sir, within the duration of human life? Millions of acres under cultivation—well managed, well stocked farms, rewarding the industry—the enterprise—and the skill devoted to them—millions of bushels of wheat exported—our agricultural products worth millions of pounds sterling—some thousands of mills and other manufacturing establishments—large and populous and thriving cities, towns, and villages, where formerly there were but tangled woods or dreary swamps—commerce spreading the sail, or driving the paddle-wheel alike over the watery highway, that stretches from the far off Gulf of Ocean to remote Superior, and over the smaller lakes that gem the interior of the country—and the whistle of the locomotive, heard above the hum of business, as it sweeps through our frontier towns, from the rocky fortress of the St. Lawrence to the grassy banks of the Detroit, or waking the echoes of the primeval forest, as it rushes far back beneath its leafy arches.

If such, then, be a correct representation of the material prosperity of Canada—and the picture is far from being overcharged—of what immense importance is it, that the diffusion of knowledge and spread of education should keep pace with the development of its resources and the increase of its revenue—that we should have a population who know not merely the rights but also the obligations of wealth—not merely its privileges but also its duties? But the practical question yet remains—what has been—what is being done by Canada in education?

In the few remarks which I shall make on this subject, I shall confine myself to the Western portion of the Province, as being that with which I am better acquainted from personal experience, and as being most interesting to the majority of those whom I address. I shall also confine myself to a period within my own recollection, as a resident of the Province. In the year 1842, the number of Universities, Colleges, Grammar and Private Schools in operation was between 70 and 80; in 1856 the number of such Institutions amounted to considerably over 300. In 1842, the number of Common Schools was a little over 1,700; in 1856, there were more than double that number. In 1842, the total number of pupils attending the different educational establishments was between 60,000 and 70,000; in 1856, they were above 260,000. Of the funds which were available, in 1842, for educational purposes, I am unable to speak with accuracy, but the amount of such funds during 1856, reached the immense sum of upwards of one million and a quarter of dollars. The magnitude of these numbers may be appreciated from the facts, that the number of pupils, whom I have mentioned as in attendance during the last year, exceeds the total population of the two Canadas at the commencement of the present century, and the sum which was available last year, for educational purposes, was considerably more than the gross Custom's revenue of the United Province, some fourteen years ago.

To these statements, in forming an estimate of the educational condition of the Province, we must add the many and important improvements which have been—which are being introduced in such Institutions of every grade. Of this topic, however, time will not permit me to take even a cursory glance.

And now, what remains for me but to congratulate this assemblage on the prosperity which has hitherto attended the country, in the development of all the most important elements of national greatness, and on the bright prospects which are opening before her, of a happy and glorious future?

Well then, sir, may we rejoice at the blessings which have been vouchsafed to us—well may we be thankful, that the pressure of the difficulties of this trying season has been lighter on us than on older and wealthier communities—well may we

pray for the continued prosperity of this fair and fertile land—and with these prayers, we will join that old familiar petition, ever so accordant with our heartiest wishes, and now so appropriate in times of trouble and danger, such as at present cast a dark but passing shadow over our dear mother-land—

"Send her victorious,
"Happy and glorious,
"Long to reign over us,
"God save the Queen!"

And with them, too, we will cordially join that equally familiar petition, taught to us by our fathers, as connected with the foundation of England's prosperity; and taught by us to our sons, as connected with the foundation of Canadian prosperity—

"God speed the plough."

We now select the following notices of the Educational section of the Exhibition from various newspapers:

From the Brantford Expositor.

The Educational department, one of the most interesting and complete of the whole exhibition, occupies an entire wing of one of the cruciform buildings. In front, as you proceed from the main aisle backwards, is the educational coat of arms, in relief, executed by Mr. S. P. May, of the Educational Office, Toronto, and for which he was awarded a first class prize and diploma at Kingston last year. Underneath is a large collection of electrical apparatus, consisting of an electrical spangle, tubes, electrical bells, swings, &c.; also, a beautiful set of eye models, &c. One of the greatest attractions is a finely executed set of astronomical apparatus, by Dr. M. H. Robert, Paris (France.) No department of the Exhibition exceeds this in beauty or in interest, and the arrangement is so perfect, that everything is displayed to the best advantage. In this collection, is to be found, though small, but exceedingly neat, almost every mechanical, and artistical contrivance, which human ingenuity has invented, for the purpose of illustrating the principles of Mathematics, Astronomy, Natural Philosophy, Chemistry, Physiology, Geography, and in fact all the natural sciences. This collection, while it affords tangible evidence of the advanced stage of our Public School system, also bears testimony to Dr. Ryerson's devotion to the best interests of our Common Schools, in thus providing the means to render the system of teaching thorough, practical, and in the highest degree useful.

In the centre is exhibited a full collection of the Irish National and Johnston's School Room Maps, with astronomical, chemical, physical, and physiological charts. The pillars on either side of the aisles of the wing appropriated to this department, present an exceedingly pleasing as well as instructive appearance, being covered with natural history, botanical, and other object lessons. So large an assortment of globes has never been exhibited before in Canada, the largest is 30 inches in diameter. A very suitable size for grammar and central schools is the 18 inch globe. The globes exhibited vary in size from thirty to two and a half inches. Agricultural books for public libraries, as well as fine selections of prize books, atlases, drawing materials, &c., are exhibited. The philosophical instruments are beautifully executed. We noticed among the articles several sizes of magic lanterns and phantasmagoria with astronomical and zoological slides, and some very beautiful paintings of Canadian scenes, as well as of the late war. At the extreme end is an immense physical map of Europe, in relief, above which is the motto, "*Intelligence, the Safeguard of Liberty,*" and opposite to this another motto, "*Education, the Handmaid of Religion.*" Several physical maps, in relief, are also exhibited here, but one of the greatest attractions at this end, seems to be the platform on which the various experiments in pneumatics, electricity and galvanism are performed. Here also is exhibited a very fine electric telegraph in operation.

There are various models of steam engines, some in action, others in sections, showing the whole interior working. Among the rest we noticed a locomotive and high pressure steam engine, made for the Department in Toronto. There are several educational frames, to one of which, invented by Mr. S. P. May, the judge awarded an extra prize.

Air pumps of several sizes, in working order, and cabinets of minerals, fossils, &c.; a large assortment of chemical laboratories, mechanical powers, apparatus to illustrate the centre of gravity, inertia, centrifugal motion, the fall of bodies, &c., are all exposed to public view.

The hydrostatic set is very complete; and we noticed among other things an hydrostatic bellows, and many other pieces of mechanism illustrative of this branch of philosophical science. Geometrical forms and solids, mathematical instruments, &c., are exhibited in abundance. Swains' large planetarium and various orreries, tellurians, &c., complete the astronomical department. The whole of this portion of the building is decorated with suitable mottoes.

An immense electrical machine is kept in constant requisition, shocking the multitude as they pass, and throwing off sparks like a disdainful lady. This department has on exhibition the mechanical paradox or gyroscope, Sopwith's geological models, beautifully executed. Plaster models of hands and feet for drawing are also exhibited. In the Canadian department there are two school maps on revolving or endless rollers—a complete set being contained in one frame, and set in motion by a crank.

We also noticed specimens of school furniture of a superior finish, with map stands, &c., manufactured by Jacques and Hay, Toronto. A substitute for the black board, manufactured by them, was also exhibited, which is capable of being rolled up into a very small compass. On the whole, this department does great credit to the Education Office in Toronto, and to Mr. May, who superintended the arrangements.

We understand that many Teachers, Local Superintendents, and Trustees, were present, and took a great interest in the Department. It must surely be gratifying to Trustees who may desire to supply their schools with superior books and apparatus, to find that they can procure, at the Depository, Toronto, the very best, and at a prices that places them within the reach of all.

From the Brantford Courier.

The Educational Department of the Exhibition is under the management of Mr. May, the Librarian of the Educational Depository, in Toronto, who has been indefatigable in his exertions, to render it as entertaining and instructive as possible; and with the assistance of two gentlemen of this neighbourhood, G. Ballachy and R. Alger, Esqrs., he has succeeded in doing so.

Before entering into details we may state, that during the last year, many additions have been made, and that the collection is much larger than at the Exhibition last year at Kingston. This speaks well for Canada. It shows that her men are men of progress; men of talent, ability, and enterprise. We have heard much of the advancement made by our American neighbours in the Arts and Sciences, but when we compare the present state of Canada to what it was a number of years ago, we must say that the advancement in agriculture, mechanics and arts, has been truly great and astonishing, and will compare favorably with our American brethren. We may also state, for the information of those not aware of it, that the articles exhibited are only specimens of those which may be obtained by School Trustees, at the Educational Depository, on very advantageous terms. It is impossible to give a detailed account of all the articles exhibited in this department. We will therefore confine ourselves to those articles which we deem most interesting to the public. The first thing that attracts the attention of the visitor, as he turns to this department, is the Educational Coat of Arms, in relief, a very elegant piece of work. Immediately below this is a number of very costly embossed maps, which are very much admired by all who visit the department.

We noticed several models of the eye, which are capable of being dissected, and by means of which every part of this important organ can be clearly shewn and readily understood. Arranged along the shelves we noticed a number of slides for Magic Lanterns, comprising very elegant, sublime, and romantic Canadian scenery, and scenes from the late war. The apparatus for the explanation of Electricity and Magnetism are

very numerous, comprising all that is necessary to explain any part of those important branches of Natural Philosophy. Electrical machines were put into operation during the Exhibition, to afford visitors an opportunity of experiencing electrical shocks. There were also a number of other very interesting experiments performed by Mr. May, such as playing the chimes by means of a set of bells and the Electrical machine,—setting a bell engine in motion by means of a Galvanic Battery. He also explained the working of the Telegraph, and set in motion some model Steam Engines, and thus showed the working of each particular part. There are a great number of Philosophical and Astronomical charts, explanatory of the various phenomena in each of these important branches of study, also a number of Physiological Diagrams, and Ma'Brun's French Lithograph models of steam engines.

We noticed a number of Canadian specimens, among which may be mentioned a stand for maps, by means of which, a complete set of maps may be made to revolve, and thus bring whatever map is needed to view,—a portable black board which can be conveniently folded up, and thus carried from place to place without the least inconvenience; there is also a specimen of desks and chairs which are supplied to schools at the moderate price of \$5 for each desk and two chairs. These are all from the establishment of Messrs. Jacques and Hay, Toronto.

From the Toronto Globe.

The northern portion of the cruciform building is entirely devoted to the Educational department, which certainly reflects great credit upon the manager, Mr. May, and to the Education Office. At the back of this department is a large chart of Europe in relief, and over it the motto—“*Intelligence the Safeguard of Liberty.*”

The Exhibition consists of specimens of the books, maps, models, and scientific apparatus for sale at the Education Office to Trustees, and the taste displayed in the arrangement of the articles is worthy of all praise.

Since the close of the Exhibition, George Buckland, Esq., Secretary of the Association, has transmitted the following “Copy of a Resolution, passed by acclamation, at the Annual Meeting of the Directors of the Provincial Agricultural Association.”

“Resolved, that the best thanks of this Meeting be given to the Rev. Dr. Ryerson, Chief Superintendent of Education for Upper Canada, for the very attractive and instructive display of Educational Apparatus, &c., so tastefully arranged, and so liberally furnished to the Exhibition of this Association.”

PROVINCIAL CERTIFICATES GRANTED TO NORMAL SCHOOL STUDENTS.

EDUCATION OFFICE, Toronto, 15th Oct., 1857.

The Deputy Superintendent of Education, on the recommendation of the Masters of the Normal School, and under the authority of the 44th section of the Upper Canada School Act of 1850, (13th and 14th Vict., chap. 48,) has granted to the undermentioned students of the Normal School, Provincial Certificates of Qualification as Common School Teachers in any part of Upper Canada.

The certificates are divided into classes, in accordance with the general programme, in the terms of which all teachers in Upper Canada are required to be examined and classified. The certificates are valid until revoked by the Department.

[The Certificates are arranged in each Division in alphabetical order.]

EIGHTEENTH SESSION.

FIRST CLASS. 489. O'Connor, Thaddeus J. (215.)

Males. 490. Purslow, Adam.

1st Division A. 491. Rae, Francis (22.)

487. Clinton, John. 492. Sinclair, Lachlin (557.)

488. McLellan, James Alexander. 493. Steele, Thomas Orton (337.)

FIRST CLASS (*Continued.*)

2nd Division B.

- 495. Campbell, Robert.
- 496. Dodds, William (378.)
- 497. Duff, Charles.
- 498. Preston, James (547.)
- 499. Smith, John Darling.
- 500. Sweet, Orison David.
- 501. Zimmerman, Isaac (471.)

3rd Division C.

- 502. Clark, Asahel Bowes.
- 503. Frisby, Edgar.

Females.

1st Division A.

- 504. Sutherland, Anne.

2nd Division B.

- 505. Henderson, Jemima.
- 506. Keown, Adelaide (562.)
- 507. Robertson, Amelia (349.)

3rd Division C.

- [551.] Carey, Eleanor Harriet (569.)
- 508. Eaton, Elizabeth Cecilia.
- 509. Gordon, Annie.
- 510. Millard, Rosa Scott.
- 511. Shoff, Anne (584.)

SECOND CLASS.

Males.

1st Division A.

- 512. Boag, Joseph.
- 513. Cremin, Daniel.
- 514. Dougherty, Isaiah.
- 515. Legerwood, Daniel.
- 516. McKenzie, John.
- 517. McLean, Archibald.
- 518. McVean, John.
- 519. Price, Robert.
- 520. Stevenson, Samuel.
- 521. Wellbanks, Hiram.
- 522. Young, Thomas.

2nd Division B.

- 523. Armstrong, John.
- 524. Baikie, John.
- 525. Brown, Isaac.
- 526. Brown, James (R. 51.)
- 527. Brown, William.
- 528. Cosby, Alfred Morgan (476.)
- 529. Kinney, Robert.
- 530. McCalla, John.
- 531. McDougall, John.
- 532. McLean, Peter.
- 533. Nicol, Peter.
- 534. Preston, David Hiram.
- 535. Sturk, John Dunn.

3rd Division C.

- 529. Morton, Frances Eliza.
- 579. Newman, Mary Hargrave.
- 580. Roche, Mary Elizabeth.
- 581. Rogers, Christina.
- 582. Scott, Elizabeth.
- 583. Tracy, Mary.
- 584. Wilson, Annie.
- 585. Wright, Eliza Jane.

Certified,

THOMAS HODGINS,

Registrar.

OPEN COMPETITION FOR THE DEGREE OF B. A. AT THE UNIVERSITY OF LONDON.

The Senate of the University of London have, by their report, approved the principle of open competition, and have nobly resolved upon extending University honors to all properly qualified students alike. This just and wise course of proceeding on the part of the Senate is above all praise, and will, if we do not greatly mistake the temper of the times, be productive of the happiest results. By this act they have removed the barrier which opposed the entrance of the non-collegiate student, and have abolished the entire code of collegiate restrictions. Henceforth the portals of the University of London will be open to all students who aspire to degrees and honors, whether educated in a college, private school, or at home. The Senate will dispense their favors equally to the collegiate and non-collegiate student. The only qualification they will require is a certificate of two years' continuous study on the part of each candidate for the B. A. degree; and the certificate of a private teacher or parent will be held to be as good and valid a test of fitness as if it had emanated from a college professor. It is hardly possible to over-estimate the importance of such a decision—a decision founded upon justice, and characterized by sentiments of enlightened liberality.—*English Literarium.*

DEATH OF BERANGER.

The very best of recent song writers is dead. Pierre Jean de Beranger expired in Paris on the 14th of July, having nearly completed his seventy-seventh year; for he was born in Paris, in the house of his grandfather—a poor tailor—on the 17th of August, 1780. When only nine years old, he went to live with his aunt, at Peronne, and there he began the work of life, by engaging as *gurçon*, or waiter at an inn. At fourteen years of age he was apprenticed to a printer; but he was soon after entered at the Patriotic Institute, where he received the best part of his education. At seventeen he went to Paris, and tried his hand at nearly every kind of literature, not hitting, however, upon lyric poetry, and all that he then wrote was trash. He was an ardent Republican, in those days, and when, in 1803, having written a good many better things, he enclosed them, with an enthusiastic letter, to Lucien Bonaparte, the literary brother of the great Bonaparte, that gentleman received it graciously, sent for the poet, gave him substantial assistance as well as advice, and opened his way to fame and fortune.

He obtained successively several lucrative posts, which did not interfere with his literary pursuits. But it was not until the year 1815 that his first collection of songs was published, though they had been privately circulated before. In 1821 his second collection appeared, but they were too full of republicanism for the Bourbons, and he was dismissed from his office of Secretary of the University, beside being imprisoned for three months. When he issued his third set of songs in 1828, he was imprisoned for nine months and fined ten thousand francs. But this fine the liberalists, who were chafing under the abuses of Charles the Tenth's government, paid immediately, and on his release from prison the poet resumed his attacks, and contributed materially to prepare the popular mind for the Revolution of 1830. He declined office under Louis Philippe, and lived in comparative retirement, though he published a fourth and final collection of songs. After the revolution of 1848 he was elected a member of the National Assembly, but he declined to serve, on account of age and infirmities. He has since then lived in such retirement that it was difficult to obtain an interview with him.

The songs of Beranger are as dear to the French as the songs of Burns to the Scotch. They breathe by turns of patriotism, love, war, wine and pleasure. The sentiment is always expressed in language suited to it; the humor is genial, the satire pointed. He wrote of love just to suit French ideas of the passion, though not to suit the loftier ideas of some other races. The love that he most frequently celebrated was grissette love, and one of the most popular of his songs of this kind is "*Les infidélités de Lisette*," each verse of which ends with a jolly sneer at such a thing as faithfulness between lovers. When he touched on politics, it was done under a sort of disguise which the quick witted French saw through at once. His famous ballad "*Le Roi d'Yvetot*" was a bitter satire on royalty in the person of Louis XVII, and yet to a casual reader it seems to be only a merry fable about a tavern sign in Normandy. His scarcely less celebrated song, "*Le Marquis de Carabas*," is a more obvious and more telling satire upon the attempts of the old nobility to resume their former dignities after the Restoration.

In his other songs, such as "*Le Vieux Corporal*," "*Le Vilain*," "*Jacques*," "*Le Sacre de Charles le Simple*," and many others, he gives expression to his scorn of royalty and aristocracy, and utters sentiments that might well have alarmed the Bourbons, the Orléanais, and even the Bonapartists. Of songs for the table Beranger has written a number, several of which are not surpassed by any in the language. "*Roger Bontemps*" is a favorite among his songs of this class. He seldom essayed to express the more refined and tender emotions, but he was not unsuccessful in the few experiments he made in that line of lyric poetry. His "*Adieux de Marie Stuart*," though probably suggested by the French song attributed to the unhappy queen herself, is elegantly expressed and full of tender feeling.

The French doubtless grieve deeply over the loss of their favorite song writer. They have watched with solicitude his declining years and even the pretty Empress, sympathizing with the popular solicitude and rather violating propriety, which would forbid a delicate lady from countenancing a poet who took so much license in his younger days, has lately given him some rather unusual proofs of regard. This may shock the sticklers for severe etiquette, but it will please the mass of the people, who delight in the very name of Beranger, who would have had him honored in every possible way. He has written a great deal that might as well have been unwritten, but many of his songs will last as long as the language.—*Bulletin.*

DEATH OF AUGUSTE COMTE.

The *Canada* brings intelligence of the death of Auguste Comte, the founder of the school of the so called "Positive Philosophy." M. Comte was about 60 years of age, a native of France, and a member of one of the old Catholic and Monarchical families. At the age of 14 he began to see visions of political and social reform, and under

the tutorship of the celebrated St. Simon, made rapid progress in philosophical studies. In 1826, when 29 years of age, Comte was attacked by a fit of insanity; from which, however, he soon recovered. He afterwards became a teacher of mathematics in Paris, and was for a long time tutor at the Polytechnic School. For a number of years he gave gratuitous lectures in Positive Philosophy on Sundays, during six months of the year, and not long since published an elaborate exposition of his doctrines. This work *The Positive Philosophy*, has been republished in the United States. The first volume, containing in the original about nine hundred pages, was composed in the incredibly short space of three months. He was a materialist; so firm a one that a critic once said of him that "he looked to the realm of the finite to discern the infinite, and because he did not succeed, denied the infinite altogether." He has a few disciples on this side the water.

Papers on India.

I. THE EAST INDIAN MASSACRES.

The fearful scenes now being enacted in the East Indies by the cowardly and mutinous Sepoys forcibly recall the tragic events connected with the conquest of the Punjab. The following touching and beautiful poem by the Very Rev. Richard Chenevix Trench, D.D., on the murder at Mooltan of two British officers, Anderson and Agnew, is singularly and painfully appropriate at the present time.

The gallant Major Edwards' narrative of the tragedy states that, "having been reduced to extremity, Sirdar Khan Sing begged Mr. Agnew to be allowed to wave a sheet and sue for mercy. Though weak from loss of blood, Agnew's heart failed him not. He replied: 'The time for mercy is gone; let none be asked for; we are not the last of the English—thousands of them will yet come down here when we are gone, and annihilate Moolraj, his soldiers, and his fort!' The crowd rushed in, seized Khan Sing and surrounded the two officers who were talking together in English, doubtless bidding each other farewell for all time. They were soon despatched, and their dead bodies thrown out and insulted by the crowd. . . . The English indeed soon came and reduced the fortress; but they did not depart without performing the last sad rites over the gallant slain. The bodies of the two officers were carefully, even affectionately, removed and wrapped in cashmere shawls, to obliterate all traces of neglect. They were borne by the soldiers in triumph through the breach in the walls, and placed in an honored resting place on the summit of Moolraj's citadel!"—ED.

Bear them gently, bear them duly, up the broad and s'oping breach
Of this torn and shattered city, till their resting-place they reach.
In the costly cashmeres folded, on the stronghold's topmost crown,
In the place of foremost honor, lay these noble relics down.

Here repose, for this is meetest, ye who here breathéd out your life,
Ah! in no triumphant battle, but beneath the assassin's knife.
Hither, bearing England's message, bringing England's just demand,
Under England's ægis, came ye to the chieftain of the land:

In these streets beset and wounded, hardly borne with life away,
Faint, and bleeding, and forsaken, in your helplessness ye lay.
But the wolves that once have tasted blood, will raven still for more;
From the infuriate city rises high the wild and savage roar.

Near and nearer grows the tumult of the gathering murderous crew,
Tremble round those helpless couches, an unarmed but faithful few:
"Profitless is all resistance: let us then this white flag wave,
Ere it be too late, disdain not mercy at their hands to crave."

But to no unworthy pleading, would descend that noble twain:
"Nay, for mercy sue not; ask not what to ask from these were vain.
We are two, betrayed and lonely; human help or hope is none;
Yet, O friends, be sure that England owns beside us many a son."

"They may slay us; in our places multitudes will here be found,
Strong to hurl this guilty city, with its murderers to the ground.
Yea, who stone by stone would tear it from its deep foundations
strong,
Rather than to leave unpunished, them that wrought this treacherous
wrong."

Other words they changed between them, which none else could
understand,

Accents of our native English, brothers grasping hand in hand.
So they died, the gallant hearted! so from earth their spirits past,
Uttering words of lofty comfort, each to each, unto the last;

And we heard, but little heeded their true spirits far away,
All of wrong and coward outrage, heaped on the unfeeling clay.
Lo! a few short moons have vanished, and the promised ones appear,
England's pledged and promised thousands, England's multitudes are
here.

Flame around the blood-stained ramparts swiftest messengers of death,
Girdling with a fiery girdle, blasting with a fiery breath;
Ceasing not, till choked with corpses low is laid the murderers' hold,
And in his last lair the tiger toils of righteous wrath enfold.

Well, oh well—ye have not fail'd them who on England's truth relied,
Who on England's name and honor did in that dread hour confide:
Now one last dear duty render to the faithful and the brave,
What they left of earth behind them rescuing for a worthier grave.

Oh then, bear them, hosts of England, up the broad and sloping breach
Of this torn and shattered city till their resting place they reach.
In the costly cashmeres folded, on the ramparts' topmost crown,
In the place of foremost honor, lay these noble reliques down!

II. INDIA UNDER THE ENGLISH.

(From the N. Y. Commercial Advertiser.)

While deprecating instances of wrong and misrule in India by the British Government and its agents, we are perhaps in danger of overlooking the good accomplished there by the same agency, and of forgetting what India was before the subjugation by England. A modern writer, who appears to be both candid and well informed, and was himself a resident in India, gives a summary of the condition of that vast country before it fell into English hands, the facts of which he has substantiated by unquestionable authorities. His summary is substantially this: The property of no man was secure from arbitrary plunder by those in power. The police were robbers, and the petty princes of the country were in league with them, permitting them to plunder on condition of sharing the spoils. No man dare live in a lonely house. No village dare leave itself unfortified. Families were at all times liable to have their females carried off for the harems of princes or their officers. Bribery of the judiciary was habitual. There was no confidence between the princes and their subjects, or between man and man. Every court had its treasons, plots and murders, and each territory was in turn ravaged by the armies of its neighbour. Horrible cruelties, practiced by the conquerors upon the conquered, were universal. In fine—

Marauding bands had swollen into marauding nations. All in power fearing the uncertainty of their tenure, scraped together immense wealth, and left the people scarcely anything, and no security for even that. Widows were burned; in many provinces infants were murdered; old, sick persons were hurried to death. In the hill tribes human sacrifices were offered, with ferocious rites; and in all countries, voluntary immolations were numerous. No man could change his religion without civil or personal punishment, unless it was in a Mahomedan state—to become a Mahomedan. Men were mutilated in limbs, noses, eyes and other members, by command of magistrates.

Hindus were ruled by Mahomedan law. Every man's life was at the will of any petty chief,—a will which, too often, was swift to shed blood: and several millions of outcasts were held in a condition, not of slavery, but of hereditary exclusion from education, handicraft, trade, office, intercourse with their neighbours, and every human right, compared with which, personal slavery, with the possibility of redemption, or of children being redeemed, is as preferable as a wound in the limb is to palsy.

Presuming this picture not to be overdrawn,—and the high standing of the writer, the Rev. Wm. Arthur, justifies the belief that it is perfectly truthful—it must be admitted that in the main, and to an almost incalculable extent, British rule in India has been a blessing to the country and a boon to humanity, a wondrous change having been wrought in the social and political condition of India. Every man's life is now secure from arbitrary authority. The Courts have been purged of their corruption, and so arranged that the poorest individual can sue the East India Company, with the certainty of having justice done him. The acquisition of wealth involves no danger. Villages are no longer fortified. Marauding chiefs and internal wars are unknown. Thugism is destroyed; and freedom of person, of conscience, of association, of the press and of labour, have been everywhere established; while the conquered princes themselves have been liberally pensioned simultaneously with their subjugation.

These are wholesome changes wrought by British power, and should not be lost sight of by any one, who would make an impartial estimate of the right and wrong of British rule in India. Against these, however, there is a set-off. No native can rise to the head of affairs, or even gain a position of great civil distinction and emolument; and in military service his highest prospects are limited to a decidedly subordinate sphere. To this may be added that the governing power, having its head quarters abroad, makes annually a heavy drain upon the finances of the country; and that the municipal or corporate rights formerly held by villages, have been infringed upon. Before the conquest, by immemorial usage, every village was a corporation, with as regular a form of administration and staff of officers as any city. This corporation paid the taxes to the general government, each individual paying his share to a common fund, according to arrangements made

among themselves. This system has been broken up, and in the Bengal presidency a sort of middle men system established, which has been found to oppress the peasantry. In the Madras presidency, an English government agent has been employed and occasional wrongs to the peasantry, and a too stringent collection of revenue, have resulted.

These are drawbacks; but there is not much room for doubt that the change of system in both cases was well intentioned. And although only a million pounds sterling are received in tribute, subsidy, &c., from the subjugated native states, nearly a million and a half of pounds sterling are paid—unless some of them have lapsed within a few years—in pensions to native conquered princes. Some of these are individually enormous, and others seem really to have been unmerited. The King of Delhi (the Mogul) receives annually £150,000; the Nawab of Bengal, £160,000; the Nawab of the Carnatic £116,540; the Rajah of Tanjore, £118,350; and others on an equally munificent scale.

The British territory in India is equal to the whole of continental Europe, Russia excepted, covering an area of 1,368,113 miles, with a population, according to the latest corrected returns, of 158,774,005. Mr. Arthur, who has given considerable attention to the subject for many years, thinks this too low an estimate, and that the population is now about two hundred millions. The territory is distributed into four governments or presidencies,—Bengal, Madras, Bombay, and Agra. Calcutta in Bengal is the seat of the Governor General and the Supreme Council, Madras and Bombay have each a Governor and Council, Agra has a Lieutenant-Governor, without a Council. The total military force at the disposal of the Governor General is about 322,000 men. Of these 20,480 are Queen's troops; 20,000 Company's European troops; 240,000 Company's native troops, and 32,000 are native contingents, commanded by British officers and available under treaties. Out of the 322,000, only forty-nine thousand are English. Recent events show that the disproportion is too great for the safety of Europeans. A source of disaffection in the native regiments may doubtless be found in the fact, that though half their officers are natives, they can rise no higher than a sort of hybrid captaincy, subordinate to the youngest European ensign. The following are the salaries of the principal European functionaries:—

Governor General.....	£25,000 per annum
Governor of Madras and Bombay....	12,000 "
Lieutenant Governor of Agra.....	8,400 "
Members of Supreme Council.....	10,000 "
Do Madras and Bombay....	6,200 "
Secretaries to Government, and other high officers—as Residents, Members of Revenue Boards, &c.....	5,200 "
Commissioners in Provinces.....	3,500 "
Judges.....	3,000 "
Judges, Madras and Bombay.....	2,800 "
Magistrate and Collector of Madras and Bombay.....	2,800 "
Collectors, Bengal.....	2,500 "

England is undeniably accomplishing for India stupendous works of internal improvement. The Ganges canal has already cost £722,566, and will be completed at an additional cost of some £900,000. The whole length, trunk and branches included, will be 180 miles. Another canal, 450 miles long, is in progress in the Punjab. Three great trunk roads are far advanced, viz: from Calcutta to Peshawur, 1422 miles; from Calcutta to Bombay, 1002 miles; from Bombay to Agra, 734 miles. One railroad is built; others are projected. A line of telegraph, now extending 82 miles, will soon be increased to 3,150 miles.

There is a moral aspect of British rule in India which should not be lost sight of. The Rev. Mr. Mullens of Calcutta, after carefully obtaining returns from every missionary station in India, has published the following statistics:—

Missionaries	443
Native Catechists	698
Native Christians counting all who have renounced Heathenism, and placed themselves under the care of the missionaries.....	112,191
Communicants, or church-members	18,410
Scholars, boys	64,480
Do girls.....	14,398
Of the male pupils above mentioned,.....	14,000

learn English, and of the girls 2,779 are in boarding schools. The whole Bible has been translated into ten languages, and the New Testament into four others. Toward the cost of these missionary labours, thirty-three thousand pounds sterling are annually raised in India.

Such are the main features of India under the English. Against this must be placed the individual instances of misrule and political iniquity. Still India has gained by the change. But whether England can maintain, to the present standard, her rule and authority over

her Indian Empire, is a problem that passing events make difficult of solution.

III. THE EAST INDIAN EMPIRE.

A Parliamentary return just published, on the motion of Colonel Sykes, M.P., gives the following statistical details of our empire in East India:—It would appear that our empire in India is formed of British and native States. The British States are in India under the government of five distinct authorities. The Governor General of India in Council exercises authority over those portions of the territory known as the Punjab, the Cis-Sutlej States, Oude, Nagpore, Pegu, and what are known as the Tenasserim Provinces—those lying on the eastern coast of the Bay of Bengal, together with the Eastern States settlements of Penang, Singapore, and Malacca. The whole of these form a territory of 246,050 square miles in extent, and contain a population of 23,255,000. The Lieutenant Governor of Bengal is charged with the administration of the divisions of Patna, Bhaugulpore, Monohedabad, Dacca, Jessor, Sunderbunds, Chittagong, Cuttack, Assam, the South-west frontier, and Arracan; the extent of country is 222,609 square miles, and the population is 41,212,000. The Lieutenant Governor of the North-western provinces has under his administration Delhi, Meerut, Rohilkund, Agra, Allahabad, Benares, and several non-regulation provinces, the names of which are unfortunately too familiar with our readers in conjunction with the present mutiny, such as Jansi, Ajmere, Jubbelpore, and others. The area of the division, including the North-western States, is 105,726 square miles, and the population 33,216,000. The government of Madras comprises a territory of 132,090 square miles, and contains a population of 22,437,000. Included within it are such districts in the south and eastern portions of the continent as Masulipatam, Arcot, Coimbatore, Malabar, Trichinopoly, Tanjore, and others—names associated with our earliest possessions in the country, and the scenes of the exploits of Clive and the extortions of Hastings. The Bombay Presidency on the western coast of Hindostan extends over an area of 131,544 miles, upon which there is a population of Mohammedans, Parsees, Jews, Christians, wild tribes, Hindoos, and others, of 11,790,000. Then come the native states. Those which are not under the direct, but are within the limits of the political supremacy of the East India Company in Bengal, comprise a population of 38,702,000, occupying an extent of territory of 515,533 square miles. In Madras, the states of a smaller description occupy 51,082 square miles, and contain 5,213,671 inhabitants; and in Bombay the extent is 60,575 miles, and the population 4,460,370. Then there are some small foreign States, French and Portuguese, which together number something over half a million of inhabitants. The empire of India, then, under the government of the East India Company, or under treaty with it, consists of the following:—

BRITISH STATES:—

	Square miles.	Population.
Under the Governor General of India in Council	246,050	23,255,000
Under the Lieutenant Governor of Bengal	221,969	40,853,000
Under the Lieutenant Governor of the North-Western Provinces....	105,759	33,655,000
Under the Madras Government. .	132,090	22,437,000
Under the Bombay Government....	131,544	11,790,000
Total of British States	837,412	131,090,000
NATIVE STATES:—		
Presidency of Bengal.....	615,533	38,702,000
“ Madras.....	51,802	5,113,000
“ Bombay	60,575	4,460,000
Grand total of the area and population of the Indian Empire.	1,465,322	180,365,000

IV. REV. DR. DUFF ON THE NEW INDIAN UNIVERSITIES.

The universities are to be three in number; namely, those of Calcutta, Madras, and Bombay. With regard to their general form, government, and functions, the London University has been chosen as their model—full scope, at the same time, being allowed for any desirable or necessary variation in points of detail. Each university, accordingly, is designed to consist of a Chancellor, Vice-Chancellor, and Fellows, who will constitute a Senate; and its primary function will be to confer degrees upon all qualified candidates from any of the institutions which may be enumerated on the foundation of the university. The institutions to be thus enumerated will comprise all those which, after due inquiry, may be pronounced capable of supplying a sufficiently high order of instruction in the different branches of art and science, in which university degrees will be accorded. They will be officially recognised as “affiliated institutions.” These may be under the management of persons of every variety of religious

persuasion. The degrees are to be given in four great departments, namely, medicine, law, civil engineering, and arts, or literature and the sciences; the subjects for enumeration are to be so selected as to include the best portions of the different schemes of study pursued at the affiliated institutions; and the members or fellows of the university are to be so chosen as to give to all those who represent the different systems of education which will be carried on in the affiliated institutions, a fair voice in the Senate.

Shortly after my arrival at Calcutta, a communication from the Government Home Secretary surprised me with the announcement that Lord Canning had been pleased to appoint me a member of the Committee for preparing a scheme for the Indian universities.

It were vain to attempt to furnish even the most meagre epitome of the earnest and prolonged discussions at our Committee meetings. Passing over a number of minor improvements, let me note two or three, in which the Christian public at home, and especially the friends of Missions, ought to feel interested.

First: To the learned languages of the East and West, any one of which the candidate for degrees may select for himself, Hebrew was added; and portions of the Old-Testament Scriptures will annually be announced in the Government “Gazette” as subjects of examination for any who may choose the Hebrew. Is not this distinct and formal recognition of the Hebrew and the Hebrew Scriptures in the scheme of our Indian universities to be hailed by all sincere Christians?

Secondly: In ancient history, besides that of Greece and Rome, the history of the Jews, from their origin to the destruction of Jerusalem, was eventually added, as imperative on the part of all candidates for degrees, whether from Hindu, Mohammedan, Government, or Missionary institutions. Now, the history of the Jews is only another name for the whole Bible history, with additions before and after the time of Christ. May we not hail this as a new triumph for the truth of God? The students of Missionary and other Christian institutions will peruse the wondrous narrative in the pure and unfiled volume of God’s own word. The students of other institutions must either do the same, or turn to the larger works of history extracted from these sacred oracles. Even in the latter case, the earnest student cannot but constantly refer to the Divine original. And thus, in future years, will the minds of the most talented of our Indian youth, throughout the three presidencies, be constrained to come in contact, not merely with the historic facts of the Bible, but with the vitalizing principles and truths of which these are the tangible embodiment. And if Missionaries everywhere take advantage of this new necessity, which will be increasingly felt as the scheme comes into full operation, there is no saying to what extent their assistance may be sought by ingenuous youth from all educational institutions; nor to what extent a new field may thus be opened up for pure and direct Missionary exertions.

Thirdly: In modern history, it was resolved that attention should not be confined to the purely civil, political, or constitutional, but should extend to the great moral and religious, changes which have inaugurated successive eras in modern civilisation. As connected with languages and history, the subject of comparative grammar and philology, with ethnography, has been introduced.

Fourthly: In mental and moral philosophy the object was, on the one hand, to exclude from the prescribed curriculum, as far as possible, all onesided or positively heterodox treatises; and, on the other hand, to name, as approved text-books, the wholesome writings of Payne, Wayland, and Abercromby, or any other similar works, embracing all the soundest and best-ascertained conclusions of ethical and mental inquirers of the true Baconian school.

Fifthly: To one other subject only, involving difficulties still greater than any of the preceding, shall I now advert; namely, the evidences of revealed religion. As to the doctrines, it was felt by all that it would not do, in our very peculiar circumstances, to introduce them into a scheme of examination for university honours in the arts. But the case seemed different with respect to evidences. As regards these, it was strenuously contended, in behalf of Missionary and other Christian institutions in which they are elaborately taught, that a competent knowledge of these ought to be held as an equivalent for a competent knowledge of some other branch of acknowledged utility taught in non-Christian institutions. After long and reiterated discussions it was decided, by a majority of votes, that, in the department of the mental and moral sciences, five subjects should be compulsory upon all students who choose to seek for the higher degrees, namely, logic, the philosophy of rhetoric, natural theology, moral philosophy, and mental philosophy; and that a sixth must be selected by each student, at his own option, from the following, namely, the philosophy of the inductive sciences, the elements of jurisprudence, the philosophy of education, or, the evidences of revealed religion, as contained in Butler’s Analogy and Paley’s Evidences. The importance of such a concession, in connexion with our Indian universities, must at once be obvious to all. Here one religion, and one only, is recognised as entitled to the

designation of revealed, and that one only true revelation, Christianity! And the conductors of Christian institutions may now, as heretofore, thoroughly indoctrinate their pupils in the momentous principles of the immortal works of Butler and Paley; while the pupils will heartily engage in the study of these, since they know that, apart from their own intrinsic value, they will henceforward be found of substantive value in the examinations for university honors.

After all these and other improvements had been carried, mostly by majorities in the Sub-Committee of Arts, they had to pass the ordeal of the general or combined Committee of all the faculties. And considering that this large Committee consisted of men representing all classes and shades of opinion in the native and European communities, it was not without serious apprehension that the touchstone of such an ordeal was anticipated. But when the day of trial came, our revised and improved report was allowed to pass unchallenged. The ordeal having been successfully passed, the report had still to obtain the approbation of the Governor General in Council. After many anxieties and fears, we were at length privileged, by God's blessing, to hail the confirmation, the final and irrevocable ratification, in March last, of all that we had done, by the Supreme Government. This sealing ordinance sets forth, that, "The subject being entirely optional, and consideration being had for the studies pursued in affiliated institutions, in some of which theology will hold a prominent place, the Governor General in Council cordially agrees in the decision to which the Committee have come, in admitting the evidences of revealed religion as contained in Butler's Analogy and Paley's Evidences, as one of the subjects which a candidate for honours in the mental and moral sciences may select for examination." [Editorial Note.—The recent mutiny in India will prevent this scheme from being carried out at present; but the noble stand which has been taken in favour of Christianity reflects honor upon the Committee and the Government, at a time so critical in Indian affairs.

V. INDIAN NAMES.

The name Sepoy, is derived by Bishop Heber, from "sip," the bow and arrow, which were originally in almost universal use by the native soldiers of India in offensive warfare. "Poor" or "pore," which is found to make the termination of so many Indian cities and settlements, signifies town. Thus Nagpore means the Town of Serpents—a definition, by the way, sufficiently appropriate when we reflect on the treacherous character of the Sepoys by whom it was so garrisoned. "Abad" and "patam" also signify town; Hyderabad being Hyder's Town, and Seringapatam—from Seringa, a name of the god Vishnoo—being the town of Seringa. Allahabad, from "Allah," God, and "abad," abode, means the abode of God; that city being the capital of Agra, the chief school of the Brahmins, and much resorted to by pilgrims. Punjab is the country of the Five Rivers, and Jaub is applied to a part of a country between two rivers. "Dawk," means post or mail courier; "Bungalow," residence; "Ghat," a landing place; "Jemadar," sergeant; "Havildar," corporal; "Soubadar," subaltern; "Tulwar," sabre; "Ferjee," European; "Kaffir," infidel; "Saib," master; "Tope," a clump of trees; "Dacoit," a robber.

VI. NOBLE CHRISTIAN MARTYR IN INDIA.

The following is an extract from a letter from an officer in the East India Company's service: We have rarely read anything so touchingly noble and beautiful as the conduct of the boy martyr:—

"When the wretched 6th Regiment mutinied at Allahabad and murdered their officers, an ensign, only 16 years of age, who was left for dead among the rest, escaped in the darkness to a neighbouring ravine. Here he found a stream, the waters of which sustained his life for four days and nights. Although desperately wounded, he contrived to raise himself into a tree during the night for protection from wild beasts. Poor boy! he had a high commission to fulfil before death released him from his sufferings.

On the 5th day he was discovered, and dragged by the brutal Sepoys before one of their leaders to have the little life left in him extinguished. There he found another prisoner, a Christian catechist, formerly a Mahomedan, whom the Sepoys were endeavouring to torment and terrify into a recantation.

The firmness of the native was giving way as he knelt amid his persecutors, with no human sympathy to support him. The boy officer, after anxiously watching him for a short time, cried out, "Oh, my friend, come what may, do not deny the Lord Jesus!"

"Just at this moment the alarm of a sudden attack by the gallant Colonel Neill with his Madras Fusileers caused the instant flight of the murderous fanatics. The catechist's life was saved. He turned to bless the boy whose faith had strengthened his faltering spirit. But the young martyr had passed beyond all reach of human cruelty. He had entered into rest."

VII. A FRENCH TESTIMONY TO THE ENGLISH IN INDIA.

In an article on the late events in India the *Constitutionnel* pays the following tribute to the noble qualities there displayed by our un-

fortunate countrymen:—"If anything could soften the bitterness inspired by the sad news from India, it is assuredly the spectacle presented by the gallant men who have fallen victims to this rebellion. The dignity of the British character and the admirable strength of the Anglo-Saxon race, which has performed so great a part in the history of the world, shine forth with splendour. Among the officers of the revolted regiments there were many young men who, by their youth and inexperience, may have contributed to the events which swept them away; but they have wiped away all faults by the firmness, free from any ostentation, they exhibited in late events. We have described more than one deed of heroism worthy the admiration of posterity. In the midst of torments and on the brink of the grave they have displayed the modest courage which characterizes in our days the man ennobled by the influence of Christian civilization. The cruelty of the murderers has only been equaled by the courage of the victims. A nation which loses such sons must doubtless bewail their martyrdom, but it has the right to be proud of them."

Educational Intelligence.

BRITISH AND FOREIGN.

— EDUCATION OF THE NATIVES IN INDIA.—INTRODUCTION OF THE IRISH NATIONAL BOOKS.—A memorial has been presented to the Bombay Government, by the native inhabitants of Bombay, regarding the class books used in regimental schools. It is signed by about 1,000 principal Hindoo, Parsee, and Mahomedan inhabitants of Bombay. The petitioners allege that ever since the formation of the Native Education Society, in 1823-24, government had on many occasions pledged itself to the principle of religious neutrality in all its acts relating to the diffusion of education amongst the natives; and, moreover, not to allow the introduction of religious books and religious instruction in schools established under its sanction or countenance. But now the class books authorised to be used in the school department of the Elphinstone Institution, and in government schools throughout the Presidency, are those edited and published in Great Britain, by Dr. J. M. McCulloch and Messrs. W. and R. Chambers, and these books abound in lessons founded on the Old and New Testaments, in which the natives do not believe, and doctrines such as Original Sin—the Fall of Man—the Atonement—the Miraculous Conception—the Crucifixion—the Miraculous Ascension—Sabbath Observance—Prophecy—Christian Miracles—Vicarious Sacrifice—Christian Salvation—the Trinity—the Mosaic Law—the Christian dispensation, &c. The memorialists believe that the introduction of these books is calculated to undermine the faith of native children, and is contrary to the rules of the Elphinstone Institution, the wishes of the government, and the feelings of those natives who have subscribed largely to educational institutions. The Government of Bombay state in reply, that these books were not introduced by the government but by the late Board of Education; that the "deficiency" in educational books of Chambers and McCulloch's publications had been reported by the Director of Public Instruction; and to supply the "defects" the Irish commissioners' series of books was to be introduced. The request of the memorialists has been complied with, and books only of a purely secular character will, in future be employed in the public schools.

— UNIVERSITY OF GLASGOW.—Professor Henry Rogers, of the United States, has been appointed to the Natural History Chair in the Glasgow University, vacant by the demise of Dr. William Couper.

— OXFORD UNIVERSITY AND ROMAN CATHOLICS.—At Oxford, the recent changes in the University regulations have been taken advantage of by several Roman Catholics, who are now pursuing their studies in that ancient seat of learning. At Lincoln College, we believe, there is now at least one Roman Catholic undergraduate, and he is not only excused from "chapel" and allowed to attend mass daily at St. Clement's, but we are even informed that communications have passed between his Roman Catholic pastor and the head of his college as to the regularity of his attendance.

— *Weekly Register.*

CANADA.

— UNIVERSITY OF MCGILL COLLEGE, MONTREAL.—At a late meeting of the Governors of McGill College, the Rev. Mr. Cornish, B. A., of London University, was appointed to the chair of Classical Literature, and Mr. Johnson, a Graduate of Trinity College, Dublin, to the chair of Mathematics and Natural Philosophy. Both gentlemen produced the high-

est testimonials. Professor Howe retains the title of Emeritus Professor of Mathematics. We believe Professor Markgraf has been appointed Assistant Secretary and Librarian.—*Herald*.

UNIVERSITY OF QUEEN'S COLLEGE, KINGSTON.—At a late meeting of the Directors of Queen's College, Kingston, the Rev. John B. Mowat, M.A., Ningara, was elected to the chair of Hebrew, Biblical Criticism and Church History, vacant by the death of the late Professor Smith.

UNIVERSITY OF VICTORIA COLLEGE, COBOURG.—We are happy to learn that the Agent for Victoria College—the Rev. W. H. Poole—has met with great success in the work of collecting for the building fund, having already obtained, within the limits of the town, upwards of \$3,000.—*Cobourg Sun*.

ST. FRANCIS' COLLEGE, RICHMOND.—This College was erected by the unaided efforts of the merchants, farmers, and mechanics of the adjacent villages and the county around; several individuals giving from \$500 to \$700 each towards it; and the building, furniture, and every thing connected with it, are highly creditable to all concerned. It is under the management of Principal E. Cleveland, A.M. The Rev. gentleman has a competent and efficient Board of Assistants. We notice also that C.J. Magill, B.A., (formerly of Lennoxville College,) has been elected as the Professor of English and Classical Literature. The College is a large and handsome brick building on one of the most commanding bluffs or knolls that overhang the St. Francis.—*Richmond Paper*.

Literary and Scientific Intelligence.

The Duke of Manchester has just made the important discovery of the whole of the letters addressed by Horace Walpole to his Eton acquaintance, and favorite friend, George Montagu. They are not "up," as may be readily supposed, to the Walpole mark of excellence; but they are good in their way. His Grace has most liberally placed the whole correspondence at the service of the editor of the first complete and uniform edition of Walpole's Letters, now in course of publication.—*Illustrated London News*.

THE PRESS OF AUSTRALIA.—The total number of newspapers now issued in the Australian colonies amounts to 81. Victoria has six daily and 38 weekly and bi-weekly; New South Wales two daily and 18 weekly and bi-weekly; Tasmania five daily and three weekly and tri-weekly; South Australia two daily and three weekly; and in Western Australia there are four weekly journals.—*Australian and New Zealand Gazette*.

Departmental Notices.

To Municipal and School Corporations in Upper Canada.

PUBLIC SCHOOL LIBRARIES.

The Chief Superintendent of Education is prepared to apportion *one hundred per cent.* upon all sums which shall be raised from local sources by Municipal Councils and School Corporations, for the establishment or increase of Public Libraries in Upper Canada, under the regulations provided according to law. Remittances must not be in less sums than five dollars.

PRIZES IN SCHOOLS.

The Chief Superintendent will grant one hundred per cent. upon all sums not less than five dollars transmitted to him by Municipalities or Boards of School Trustees for the purchase of books or reward cards for distribution as prizes in Grammar and Common Schools.

SCHOOL MAPS AND APPARATUS.

The Chief Superintendent will add 100 per cent. to any sum or sums, not less than five dollars, transmitted to the Department from Grammar and Common Schools; and forward Maps, Apparatus, Charts, and Diagrams to the value of the amount thus augmented, upon receiving a list of the articles required by the Trustees. In all cases it will be necessary for any person, acting on behalf of the Trustees, to enclose or present a written authority to do so, verified by the corporate seal of the Trustees. A selection of articles to be sent can always be made by the Department, when so desired.

SCHOOL REGISTERS.

School Registers are supplied gratuitously, from the Department, to Grammar and Common School Trustees in Cities, Towns, Villages and Townships by the County Clerks—through the local Superintendents. Application should therefore be

made direct to the local Superintendents for them, and not to the Department. The present year's supply for Common Schools has been sent to the County Clerks. Those for Grammar Schools have been sent direct to the head Masters of the Schools.

TO SCHOOL TRUSTEES.

A TEACHER of several years experience, where present engagement expire on the 1st January next, would be glad to hear from any person requiring his services. He is competent to teach, according to the most approved method, the Commoner and Higher Branches of a thorough and liberal English Education, with the French, Latin, and Greek languages. Address, stating salary, X. Y. Z., Sheffield, P.O., Beverly Township, C.W. November 2nd, 1857.

THE BELLEVILLE SEMINARY,

LOCATED at BELLEVILLE, C. W., was opened in July last, and is furnished with a complete staff of Teachers, in both the Male and Female Departments. The Institution is beautifully situated, and affords accommodation for about 400 students. Nearly 200 can be boarded on the premises. A Commercial, Mathematical, and Classical Education will be given to gentlemen; while ladies will be taught, besides all the usual solid and ornamental branches, the French, Italian, Spanish, and German languages. The next Session will commence on the 5th of November ensuing. A circular may be obtained by applying to the Principal.

J. H. JOHNSON, A. M., Principal, Belleville Seminary, Oct. 2, 1857.

UPPER CANADA COLLEGE.

THE SENATE OF THE UNIVERSITY OF TORONTO having established a Mastership in Upper Canada College with a special view to instruction in the highest branches of the English Language and its Literature,—Candidates are invited to forward their testimonials to the Provincial Secretary, on or before the FIRST DAY OF DECEMBER NEXT.

The Emoluments are as follows:—Salary £300, Halifax currency, with his share of the Fees, amounting at present to about £60, and a free house.

CANADA EDUCATIONAL DIRECTORY.

EDITED BY THOMAS HODGINS,
LL.B. UNIV. COLL. TORONTO.

CONTAINING LISTS of all the Educational Officers and Institutions in Upper and Lower Canada.

HISTORY of University, Grammar and Common School Education in Lower Canada since 1663, and in Upper Canada since 1789.

REQUISITES for Certificates, Diplomas and Degrees in the several Universities and Schools, and the Law, Medical and Surveying Professions.

DECISIONS of the Courts of Queen's Bench and Common Pleas on disputed questions between Trustees and Teachers,—School Assessments,—Alterations in Section Boundaries,—Union Sections,—Boards and Councils in Cities, Towns and Villages,—School Officers, &c., (about 50 decisions.)

PLANS of School Houses, &c.

Forming a complete hand-book for Local Superintendents, Teachers, Trustees, and other Educational and Municipal Officers. PRICE 25 cents. MACLEAR & CO., Publishers, 16, King Street East, Toronto.

ILLUSTRATED GEOGRAPHY & HISTORY OF THE BRITISH COLONIES.

BY J. GEORGE HODGINS.

JUST PUBLISHED, an ILLUSTRATED GEOGRAPHY AND HISTORY OF BRITISH AMERICA, and of the other COLONIES of the Empire.

In addition to the usual Geographical information, this Geography contains a summary of the history of each of the British Dependencies in Europe, Asia, Africa, and America: a short sketch of the Indian Tribes of Canada; and biographical notices of eminent individuals whose names are associated with our earlier Colonial history, &c.

With seventy-four illustrations. Cloth, gilt, lettered. pp. 128. Price 50 cts. per copy, or \$5 per dozen.

Maclear & Co., Publishers, Toronto. May be obtained through any book-seller. Orders solicited.

SCHOOL FURNITURE.

JACQUES & HAY continue to make School Desks and Chairs of the most approved patterns, and can execute orders promptly and at moderate prices. Samples may be seen at the Educational Depository.

Toronto, March 3, 1857.

ADVERTISEMENTS inserted in the *Journal of Education* for one penny per word, which may be remitted in postage stamps, or otherwise.

TERMS: For a single copy of the *Journal of Education*, 5s. per annum; back vols. neatly stitched, supplied on the same terms. All subscriptions to commence with the January number, and payment in advance must in all cases accompany the order. Single numbers, 7½d. each.

All communications to be addressed to Mr. J. GEORGE HODGINS, Education Office, Toronto.

TORONTO: Printed by LOVELL & GIBSON, corner Yonge and of Melinda Streets.