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JOURNAL OF EDUCATION,

Upper Canada.

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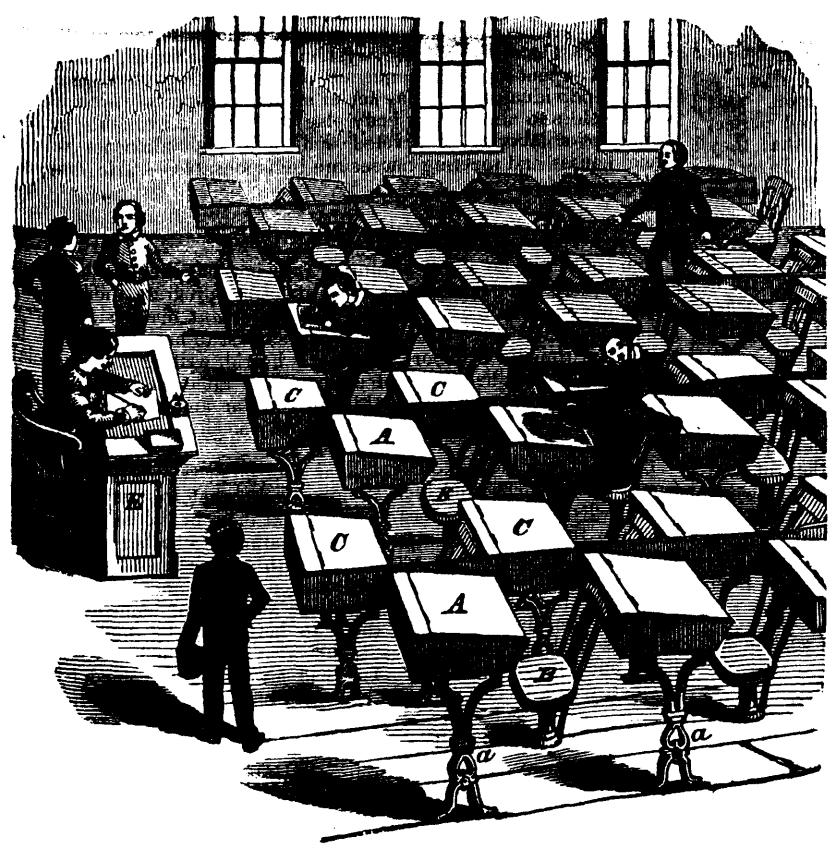
CONTENTS OF THIS NUMBER.

OUR SUMMER SCHOOLS AND SCHOOL-HOUSES.

Ere this number of the *Journal* reaches our readers, the summer schools, in more than three thousand sections, will have commenced, and thousands of children may be seen daily wending their way over hill-sides and through valley towards the section school-house. How often will the traveller see a happy group of little ones, with well-filled basket or pail, on the way to school! In itself it is a delightful sight; and if all our schools were what they should be, all the associations connected with the sight would be pleasant indeed. But we are sorry to say, that many a mother's entire inposition in which, perhaps, they are obliged to ~~arrest will only lead to the packing of the dinner~~ basket, and in getting the children off,—"*out of the way*. If they assert with earnestness "how glad they are that school has commenced," too often the source of such gladness flows from the feeling that for the day their homes may be rendered a little more quiet,—their cares a little less numerous.



INTERIOR SEATING OF A SCHOOL-HOUSE.—(SEE PAGE 72.)

Explanation:—A. A. First rows of desks; B. B. Corresponding seats: C. C. Second rows of desks; D. D. Separate partitions; E. Teacher's desk; *a. a.* Cast-iron desk standards.

They will not, even in imagination, follow the dear ones to the school, and witness the repulsive appearance of the room in which they meet, or to behold the painful and health-destroying position in which, perhaps, they are obliged to sit for many hours daily. No; sad as the thought is, it is true, that but few parents will really know how much their children will suffer from the inconvenient and uncomfortable condition of the rooms in which they attend school. If they could only realize this, in its true sense, how soon would hundreds of the old school-houses find their proper level,—"in dust and ashes!"

But it is not our intention to address parents. We wish to have a few familiar words with the teachers. For them, as a class, we have a high regard: in many of them we feel a personal, friendly interest. We will confine our talk to the novices—those who are teaching their *first school*. You, dear friends, have passed the

dreaded ordeal: you have been examined, and are now *legally* qualified "school teachers." We say *legally;* perhaps you are in every good sense. We certainly *hope* you are: that remains to be seen.

But, we think we hear one say, "I have been examined, and have received a certificate of my qualifications." All very well, good friends—very well as far it goes; but it will go but a very little way towards keeping a good school. You may have read in a style charming to the examiners; you may have parsed correctly, and answered all the questions proposed with wonderful promptness and accuracy,—and yet not be qualified to teach school. We *hope* you'll succeed. Of that we shall know more hereafter.

But, say you, "I have been at the Normal School, and received instructions there." All this, too, is very well as far as it goes. We are certainly very glad that you have had the advantages of that excellent school, and that you have been instructed by those so eminently qualified to direct you. We have more hope of you on this very account. Yet do not feel too certain that you can teach a first-rate school. Have you properly considered what will be required of you? Have you duly thought of the magnitude of the work before you,—of the extent and amount of your daily influence? You are to guide, instruct, and train the youthful mind; to discipline the heart, to store the mind with useful knowledge, to prepare the youth under your daily care for future duties, so that they may "act well act their parts in life." Let us proceed to specify a few particulars to which your attention must be carefully, constantly, and wisely directed, if you would succeed.

1. *You must have order.*

No school can be truly successful without order. It is, then, of the first importance that you know what constitutes good order, and equally important that you know how to secure it. If you can not govern, wisely and well, we hardly dare hope for any good result in teaching. As well might a coachman undertake to guide untrained horses without "bit and rein" as for you to attempt to instruct the youth under your care without proper discipline. Indeed the very first lesson to be taught is *obedience.* Your pupils come from various homes; they have been subjected to various modes of discipline; many, we fear, have never been governed. They must, if possible, be made to feel that order and quiet in the school-room are essential for their good; they must, by all means, be made to feel that you regard order as indispensable and that you *will* have it. But do not begin to bluster, and storm, and threaten. There is a quiet, dignified, determined manner that is far more powerful. The "still, small voice," the firm, kind tones will be most felt and soonest heeded. But be sure that you have order, and from the outset let it be your rule not to proceed with any recitation unless order and quietness prevail. Some teachers attempt to get along with a sort of "half way" order. They will allow some whispering and slight deviation. But this will not answer. Perfect order should be aimed at and perfect order will be most easily maintained. If pupils once feel that they can deviate a little, they will soon deviate much and often. In order that right discipline may be more easily gained, endeavor to cause your pupils to feel an interest in their school. To this end let them see that *you* feel interested in your duties and that you sincerely and earnestly desire their best good. Strive to be cheerful and to make the school-room pleasant, its exercises interesting. If your heart is really in your work it will be felt by your pupils. "*As is the teacher so will be the pupils.*" Please remember this.

2. *Be thorough in your teaching.*

We have seen teachers whose entire idea of teaching was confined to asking the questions of the book and hearing the answers as printed in the book. Let not this be your view. Aim rather to make every lesson interesting and clear by remarks and illustrations of your own, and be sure that every principle is well understood. Be not ambitious to teach much, or many things, but strive to be exact and thorough in all your instructions. Remember that the great thing is so to discipline and train the minds of your pupils that they may learn how to do things for themselves: in other words, teach them how to think.

3. *Convince your pupils that you are their friend and wish to do them good.*

Children are very quick to discover who their friends are. If you go to the School-room as a mere duty and while there go through with a certain formal routine of duties, a cold formality will soon characterise all the exercises of the school. Therefore seek to convince your pupils that your heart is in your work. Indeed, if your heart is in your work, and you love it, your pupils will see it and feel it. It cannot be otherwise. But if you have engaged in teaching merely for the novelty, or for the sake of the small pittance you are to receive for your services, the sooner you abandon the business the better it will be for all concerned.

4. *Let your daily and hourly example be right.*

The influence of example is silent but all powerful. It will be felt,—it will manifest itself. Then let it be your aim in word and deed to be correct. Do not forget that you are a pattern for the little ones, and strive to be a worthy pattern in all that is lovely and desirable. The silent, sure influence of example cannot be resisted. Every hour of every day that you spend with your pupils is fraught with influence, either for good or evil, and that, too, if you speak not a word. Your looks, your movements will be felt. Then will you not be ever watchful—never forgetting that the eyes of the little ones are ever upon you and that no one, except their parents, has so large a place in their thoughts and hearts as their teachers.

O teacher, will you not engage in your summer's work heartily and earnestly? Will you not labor "in season and out of season" for the good of your pupils? Will you not strive to make the path of learning pleasant and as it were to lure the young onward and upward? Will you not improve every opportunity to enlighten the heart and lead to right action from right motives? If you will, your work will be pleasant—your reward satisfactory.—*Modified from the Connecticut C. S. Journal.*

SCHOOL HOUSES AS WAY-MARKS.

A correspondent from Berea writes that school houses generally have an intolerable sameness, looking as if they were cut out by the same pattern, and made at the same shop. They are too easily recognized. They should have as much pleasing variety as the private houses which adorn our delightful land. There should be something about them different from those monotonous and dreary circumstances which now surround them every where here. If men would build them more nearly to resemble their own homes, going to school would be robbed of half of its irksomeness. Those boys and girls who have pleasant homes, would hardly realize their absence from them, and the children of poor or untasteful parents would enjoy the privilege of spending a portion of each day where their love of beauty and propriety would be gratified and increased. We would say that Ohio stands preeminent for the improvement made in the style and comfort of common and union school houses. The great outcry of grumblers since the passage of the revised school law has been caused by the Boards of Education having obtain-the opportunity to tax the people for better school buildings, and for fear that the opportunity might not last long, have expended in some cases beyond a reasonable sum. Good houses, commodious and well ventilated, have been the result, and neighborhoods have been improved morally and economically a thousond fold by the expenditure. Under the old fogy system, so long in vogue, not a dime could be expended in consequence of some consequential self-important individual, the casual holder of some property which would be valueless to him or any body else if not made available by the vicinity of a laboring, cultivated and moral population, for whom school houses and meeting houses are indispensable.—*Ohio Journal of Education.*

VISIT YOUR SCHOOLS.

You could not do a better thing. Your boy has the idea that you care scarcely more than a fig's value about his progress there; your girl thinks you are too busy about *more important* matters to worry about her recitations. Grammar is dry as dust to her, geography is tedious, arithmetic is a bore, reading is horrid, writing is her special abomination. If she speaks of either at the table she is hushed up. You talk of stocks and senatorship, of the war and free trade. The young ones learn to think their studies very small matters in comparison with yours.

But visit your school to-day. Hear a lesson or two recited. Learn from their teachers what their standing is, in what they oftenest fail, and in what they excel. See who sits next them in the school-room. See how they compare in personal appearance, whether they look happy and at home. If acquainted with their school habits, you cannot but be interested in them, and then you cannot possibly avoid talking of them. Making these matters subjects of home conversation will certainly stimulate them to better efforts—make better scholars of them. By all means, then visit your schools. Go alone, if no one will go with you. You will always be welcomed by the teacher, unless he is a fit one to be turned off.—*Pittsburg Visitor.*

EVIL OF ABSENCE AND TRUANCY FROM SCHOOL.

A child permitted to be entirely absent from school not only loses advantages which, if improved, might make him happy and useful to the society in which he lives; he contracts a distaste for application, and learns to love ignorance and stupidity. He becomes yearly less and less inclined to any intellectual effort, and more and more ready to be made the dupe of the designing, the tool of the demagogue, the instrument of fanaticism and discord. And furthermore, he is in in-

creasing danger of becoming idle and reckless, and consequently vicious and destructive. Having no ability to read and thus beguile his hours of leisure in the pleasing task of self-instruction, he is likely to be a wanderer from his home at nightfall, and therefore a fit and easy prey to every selfish and criminal propensity of his own nature or of his neighbor.

These are the evils—described in short, and imperfectly—of entire absence from schools. The evils springing from only partial absence or irregular attendance at school are in many respects kindred to them. But it should be here remarked, that as all vices have a tendency to produce results apparently greater than we can reasonably expect, while virtues strangely seem to produce less striking effects than reason would lead us to anticipate, so the evil effects of a few absences from school or of small irregularities in attendance will of course always be greater than their apparent insignificance would warrant us to look for. We must in this place take an account of the loss of time—whether the child is employed in work or otherwise—of the disrelish of mental application contracted during that absence, and, in consequence of it, of the fearful proclivity of vice and crime, stimulated if not produced in the absentee's nature by his neglect of privileges; and in addition to all these—necessary results of any amount of irregular attendance—we must look at the effect produced upon those who are not absent. For in this world we are all so closely connected one with another, that no one of us can sin or neglect duty, or fail to improve, without inflicting a serious injury on our fellows.

If four children from a class of sixteen—which is about the ratio of absenteeism among those who are enrolled on the school registers—are absent every day, there is, besides the loss of just one-fourth of the teacher's time, and the school expenses, a fearful drawback on the industry and progress of the scholars who are present. Of the twelve present to-day, four, that is one third, were absent yesterday, and having not heard that lesson recited and explained, they are not fitted to understand the present lesson. The teacher must therefore go over it rapidly to them, and this will cause a loss of time to the other eight, and being done rapidly will not be fully understood by the four absentees. Here then are three losses—no one of which is inconsiderable—the time and strength of the teacher—the time and patience of the scholars who were punctual—and the loss of the absentees themselves—resulting from the imperfect understanding of the previous lesson, and all these are in additional to those enumerated above. As this twenty-five per cent. is the constant ratio of absenteeism, these losses are every day losses, and their amount in a year is fearful.

The effect of these is to introduce discouragement into the breast of the faithful and courageous teacher, and confusion and loss of interest into all the classes and exercises of his school.

Thus it appears that the child, whoever he may be, that is enrolled on the register of the public school, and then is often absent, not only squanders his own precious time, but does actually retard the intellectual progress of the whole school; and is therefore, in truth, depriving others of the power to reap their full due share of the liberal provision which the State makes for the education of all its sons and daughters. And the parent or guardian who demands or expects that the Commonwealth shall assist him in the noble work of education is, if he allows or commands this absence, defrauding the child, wasting the money of the public treasury, and placing obstacles in the way of each of his neighbors and their children, to hinder them from the full enjoyment of one of their natural and just rights. Ought this to be submitted to with patience? Has not the body politic a right to demand that these causes of hindrances to the profitable use of the treasures devoted to public instruction be removed? There can be in the mind of any far-seeing philanthropist and statesman, no question as to this right. And as to the duty of enforcing it by all suitable means, there must be quite as little question

R. I. Schoolmaster.

SCHOOL ARCHITECTURE.—(*Continued.*)

PART IV.—INTERIOR OF THE SCHOOL-HOUSE: HEATING AND VENTILATING.

We now proceed to make some remarks on the interior construction and arrangements of the School-house.

1. Size.—Each School-house should be sufficiently large to allow every pupil; 1. To sit comfortably at his desk; 2. To leave it without disturbing any one else: 3. To see explanations on his lessons, and to recite, without being incommoded or incommoding others; 4. To breathe a wholesome atmosphere. For the accomplishment of this last, not less than 150 cubic feet of air should be allowed for every pupil.

2. Platform and Shelves.—The master's platform may be raised about eight inches; and the end of the room occupied by him should be filled with shelves for a library, and for philosophical apparatus and any collections of natural curiosities (such as rocks, minerals, plants, shells, &c.,) which may be made in the neighborhood, or obtained from abroad. The books, apparatus, and collections should be protected by doors, which may be made perfectly plain and without panels, so as to be painted black, and serve as blackboards if necessary. They may be conveniently divided *by pilasters* into three portions—the middle one for books, the other for apparatus and collections. On one of the pilasters may be a cloek; on the other a barometer and thermomcter; on shelves in the corners, the globes; and over the library, in the centre, may be the time table. One of the pilasters may form part of the ventilating tube. The space for the platform, shelves, &c., between the front range of desks and the north wall, should be from seven to ten or twelve feet, according to the size of the room and the number of pupils contemplated. The sides and front of this space should be furnished with seats, ten or eleven inches wide, for very young pupils when the school is large, and sometimes for classes reciting. By means of a large moveable blackboard, this space may be in case of need, divided into two, so that two classes may recite at a time.

3. Entry, &c.—The entry should be lighted by a window, and furnished with books or pins, for the accommodation of hats, bonnets, and cloaks; and a wood-closet, large enough to contain one or two cords of wood. By making the ceiling of the entry and wood-closet only seven feet high, two commodious rooms for recitation may be formed above tkem, lighted from the windows over the front door, and accessible by stairs from within the school-room.

th4. Light.—The windows should be on the east and west sides of noe room, and on the right and left of the pupils. Windows on the ligrth, although they admit too much cold in winter, give an agreeable terht. From the south the light is too intense. The eye is often madligialy and permanently injured by being directly exposed to strong nephtl and if the light come from behind, the head and body of the tlalup; interposed, throw the book into their shadow. The windows houi be set high enough to give an uninterrupted light, and prep ,upils sitting at their desks from seeing persons or objects on the ground without. The windows should be furnished with blinds of curtains, and should be made to open from the top as well as from the bottom; so that in the summer season when the ventilator will not act, they may supply its place.

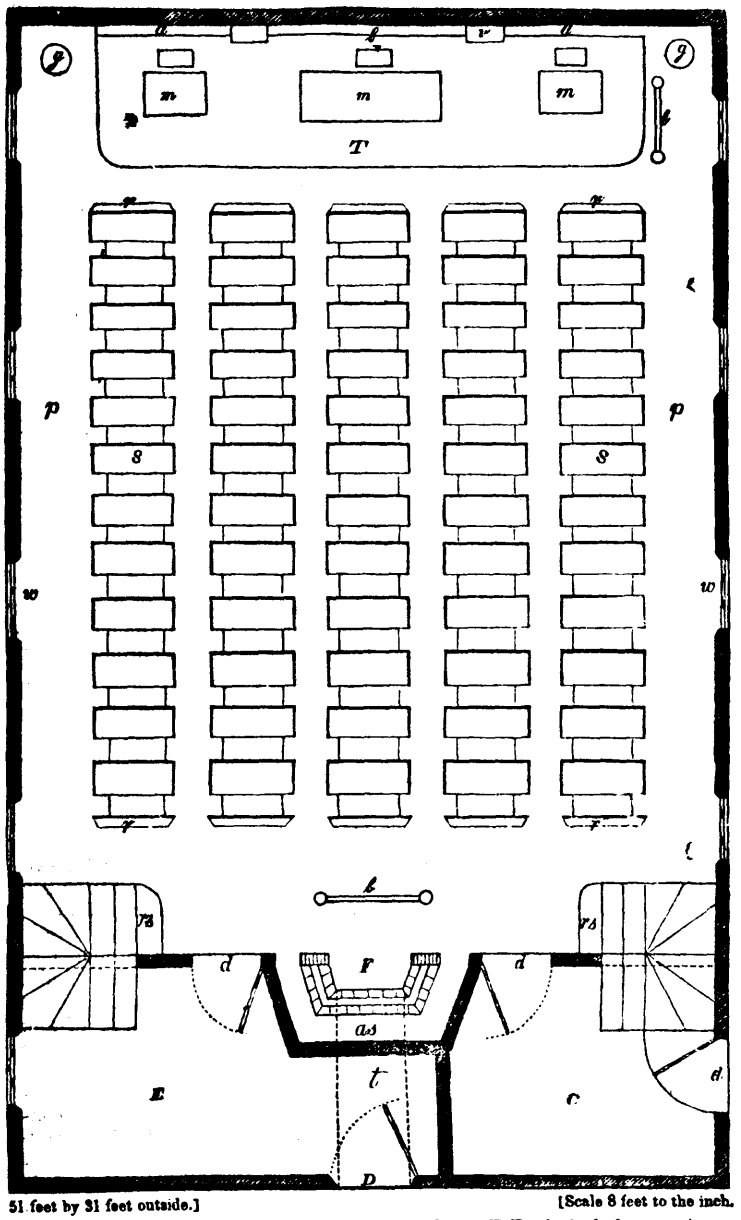
5. Heating.—There are two common modes of warming school-houses in this country,—by means of open fire-place and stove. The former is preferable with reference to health, and by a little pains in the construction, may almost equal the stove in economy of fuel—furnishing the room at the same time with an ample supply of fresh, warm air from abroad. In a suitable position, near the door, (see F in the following Figure 1,) let a common brick fireplace be built. Let this be enclosed, on the back and on each side, by a casing of brick, leaving, between the fireplace and the casing, a space of four or five inches, (see *Fig.* 2, *Sec. A*,) which will be heated through the back and jambs. Into this space let air be admitted from beneath by box 24 inches wide by 6 or 8 deep, leading from the external atmosphere by an opening beneath the front door, or at some other convenient place. (See *t* in *Fig.* 1.) The brick casing should be continued as high as six or eight inches above the top of the fire place, where it may open into the room by lateral orifices, to be commanded by iron doors, through which the heated air will enter the room. (See *e e*, *Sec. A*, *Fig.* 2.) If these orifices are lower, part of the warm air will find its way into the fireplace. The brick chimney should rise at least two or three feet above the hollow back, and may be surmounted by a flat iron, soap-stone, or brick-top, with an opening for a smoke-pipe, which may thence be conducted to any part of the room, the same as a common stove-pipe. The smoke-pipe should rise a foot, then pass to one side, and then, over a passage, to the opposite extremity of the room, (when its heat having been exhausted) it should asceud perpendicularly and issue above the roof. (See *i* in *Fig.* 2, C C in *Fig.* 3.)

The following are some of the advantages of this double fireplace; 1. The fire, being made against brick, imparts to the air of the apartment no deleterious qualities which are produced by the common iron stove, but gives the pleasant heat of an open fire place. 2. None of the heat of the fuel will be lost, as the smoke-pipe may be extended far enough to communicate nearly all the heat contained in the smoke. 3. The current of air heated within the hollow-back, and constantly pouring into the room, will diffuse an agreeable heat throughout every part. 4. The pressure of the air of the room will be constantly outward, little cold will enter by cracks and windows, and the fire-place will have no tendency to smoke.

If instead of this fireplace, the common stove be adopted, it should be placed above the air-passage, which may he commanded by a valve or register in the floor, so as to admit or exclude air. The stove should be plaeed a little in front of the position assigned to the fireplace in *Fig.* 1.

6. Ventilation.—As the best possible ventilator is an open fireplace a room warmed by such a fireplace as that just described may be

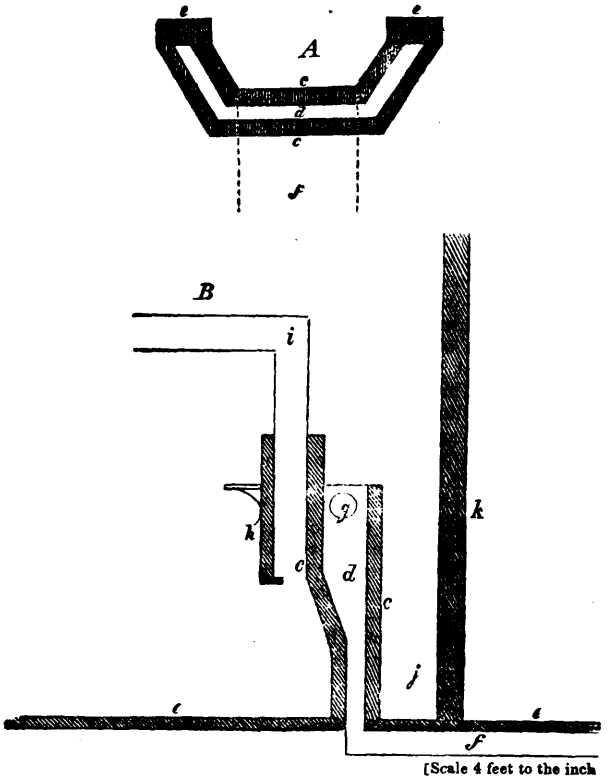
FIG. 1.
SCHOOL FOR ONE HUNDRED AND TWENTY PUPILS.



51 feet by 31 feet outside.] [Scale 8 feet to the inch.

D. Entrance door. E. Entry. F. Fireplace. C. Wood closet. T. Teacher's platform. *a*. Apparatus shelves. *t*. Air tube beneath the floor. *d*. Doors. *g*. Globes. *l*. Library shelves. *m*. Master's table and seat. *p*. Passages. *r*. Recitation seats. *s*. Scholars' desks and seats. *r s*. Stairs to recitation rooms in the attic. *v* Ventilator. *w*. Windows. *b*. Movable blackboard. *a s* Air space behind the fireplace

FIG. 2.
FIREPLACE.



[Scale 4 feet to the inch

A. Horizontal section.
B. Perpendicular section.
c. Brick walls, 4 inches thick.
d. Air space between the walls.
e. Solid fronts of masonry.
f. Air box for supply of fresh air, extending beneath the floor to the front door.
g. Openings on the sides of the fireplace for the heated air to pass into the room.
h. Front of the fireplace and mantelpiece.
i. Iron smoke flue, 8 inches diameter.
j. Space between the fireplace and wall.
k. Partition wall.
l Floor.

easily ventilated. If a current of air is constantly pouring in, a current of the same size will rush out wherever it can find an outlet, and with it will carry the impurities with which the air of an occupied room is always charged. For this an open fireplace may suffice. But when the room is warmed by a common stove, other provisions must be made for its ventilation. In addition to the various modes of ventilation described in previous numbers of this *Journal*, we may remark, that a most effective ventilator for throwing out foul air is one opening into a tube which encloses the smoke-flue at the point where it passes through the roof, as represented by *B* in *Fig.* 3. Warm air naturally rises. If a portion of the smoke flue be enclosed by a tin tube, it will warm the air within this tube, and give it a tendency to rise. If then a wooden tube, opening near the floor, (see *Fig.* 3,) be made to communicate, by its upper extremity, with the tin tube, an upward current will take place in it, which will always act whenever the smoke-flue is warm.

For further details and arrangements we refer to the explanations connected with the plates.

As heating by hot air is more generally adopted, we give in Fig. 4 a transverse section of two stories of a grammar school-house thus heated, and exhibiting the interior arrangements, maps, master's desk, clocks, black-board, seats, hot air and ventilating apparatus, &c. The flues for hot air to the upper floor should be conveyed in the flues and enclosed in the partition.

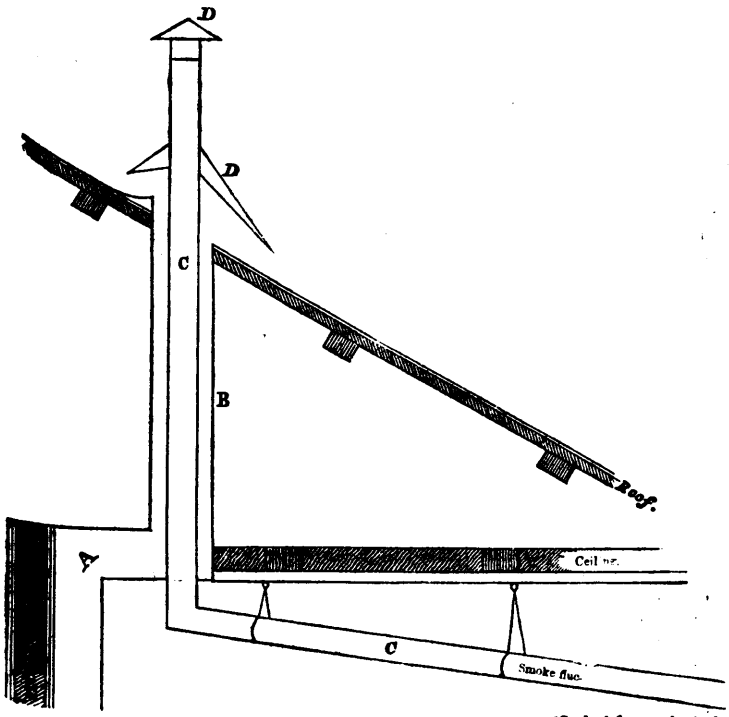
Figure 5 gives a lateral section of the ventiduals or foul air flues, showing the manner in which the flues are packed together, and carried up separately from the floor of each room until they discharge into the common ejector at the apex of the roof.

A simpler form of heating and ventilation is given in the following figure 6 (p. 58.) The stove is not the ordinary kind, but is a new form of heater. The cold air is brought in under thefloor from outside, as indicated by the arrow, and passing round the heated stove, is thrown off at either side through two ducts. The smoke-pipe is carried in the usual way, (high enough to prevent any injurious radiation of heat upon the heads of the pupils below,) to the centre of the opposite nd of the room, where, after passing through the ceiling, it enters the ventilating flue, which, commencing at the floor, esee direction of the arrows,) is carried up through the attic, (and out above the roof. The heat of the smoke-pipe produces a lively current of air in the upper portion of the ventilating flue, sufficient to draw off the lower stratum of air near the floor, and at the same time diffuse equally through the school-room the fresh air which is introduced and warmed by the heater at the opposite end of the room.

The importance of fully providing for the efficient warming and ventilation of school-houses, is thus treated in Barnard's School Architecture:

SYMPTOMS OF BAD AIR IN A SCHOOL ROOM.—Every man and woman, who received any portion of their early education in the common school, can testify to the narrow dimensions, and low ceiling of the school-rooms, and to the discomfort arising from the close, stagnant, offensive atmosphere, which they were obliged to breathe. Who does not remember the comparative freshness and vigor of mind and body with which the morning's study and recitations were begun, and the languor and weariness of body, the confusion of mind, the dry skin, the flushed cheek, the aching head, the sickening sensations, the unnatural demand for drink, the thousand excuses to get out of doors, which came along in succession as the day advanced, and especially in a winter's afternoon, when the overheated and unrenewed atmosphere had become obvious to every sense? These were nature's signals of distress, and who can forget the delicious sensations with which her balmy breath, when admitted on the occasional opening of the door, would visit the brow and face, and be felt all along the re-

FIG. 3.
VENTILATING APPARATUS.



[Scale 4 feet to the inch

A. Air box, 1 foot square, or 24 inches by 6, covered by the pilaster, and opening at the floor, in the base of the pilaster.
B. Round iron tube, 15½ inches in diameter, being a continuation of the air box, through the centre of which passes,
C. The smoke flue, 8 inches diameter
D Caps to keep out the rain.

vitalized blood, or the newness of life with which nerve, muscle, and mind were endued by free exercise in the open air at the recess, and the close of the school? Let any one who is sceptical on this point visit the school of his own section, where his own children perhaps

FIG. 5.

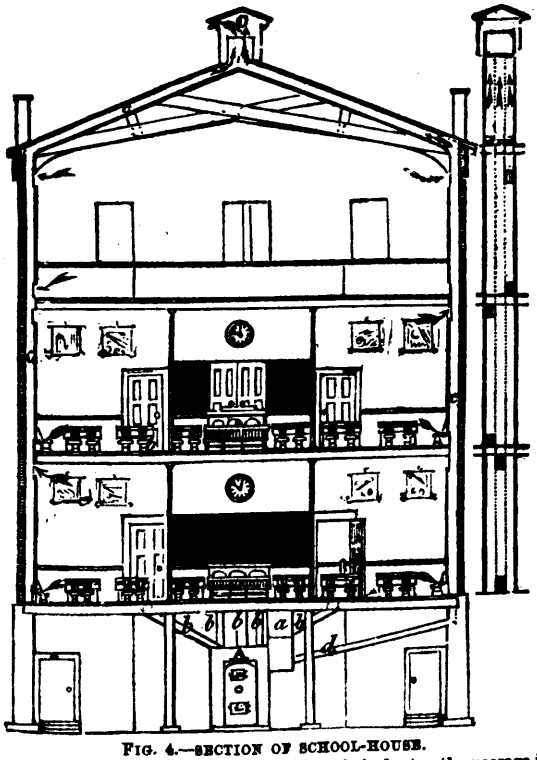


FIG. 4.—SECTION OF SCHOOL-HOUSE.

F. Hot air furnace.
a. Cold air ducts.
bbbbb. Hot air ducts to the registery in the floors.
c. Foul air ducts—the passage into, and through, which is indicated by an arrow.
d. Smoke flue.

are condemned to a shorter allowance of pure air than the criminals of the State, and he cannot fail to see in the pale and wearied countenances of the pupils, the langour and uneasiness manifested, especially by the younger children, and exhaustion and irritability of the teacher, a demonstration that the atmosphere of the room is no longer such as the comfort, health, and cheerful labor of both teacher and pupils require.

EFFECTS OF BAD AIR ON THE HEALTH OF TEACHERS AND PUPILS.—In this way the seeds of disease are sown broadcast among the young, and especially among teachers of delicate health. "In looking back," says the venerable Dr. Woodbridge in a communication on school-houses to the American Institute of Instruction, "upon the languor of fifty years of labor as a teacher, reiterated with many a weary day, I attribute a great proportion of it to *mephetic air;* nor can I doubt, that it has compelled many worthy and promising teachers to quit the employment. Neither can I doubt, that it has been the *great cause* of their subsequently sickly habits and untimely decease." A physician in Massachusetts, selected two schools, of nearly the same number of children, belonging to families of the same condition of life, and no causes, independent of the circumstances of their several school-houses, were known to affect their health. One house was dry and properly ventilated—the other damp, and not ventilated. In the former, during a period of forty-five days, five scholars were absent from sickness to the amount in the whole of twenty days. In the latter, during the same period of time, and from the same cause, nineteen children were absent to an amount in all of one hundred and forty-five days, and the appearance of the children not thus detained by sickness indicated a marked difference in their condition as to health.

The necessity of renewing the atmosphere, does not arise solely from the consumption of the oxygen, and the constant generation of carbonic acid, but from the presence of other destructive agents and impurities. There is carburetted hydrogen, which Dr. Dunglinson in his Physiology, characterizes, "as very depressing to the vital functions. Even while largely diluted with atmospheric air, it occasions vertigo, sickness, diminution of the force and velocity of the pulse, reduction of muscular vigor, and every symptom of diminished power." There is also sulphuretted hydrogen, which the same author says, in its pure state, kills instantly, and in its diluted state, produces powerful sedative effects on the pulse, muscles, and whole nervous system. There are also offensive and destructive impurities arising from the decomposition of animal and vegetable matter in contact with the stove, or dissolved in the evaporating dish.

TWO OBJECTS TO BE ATTENDED TO.—The objects to be attained are—

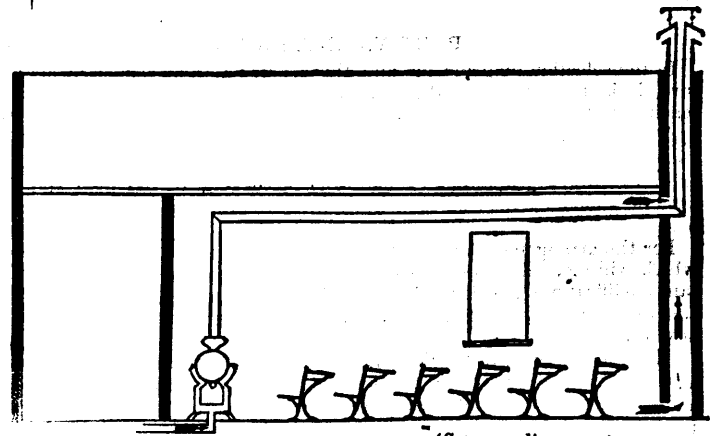


FIG. 6.—SECTION, WITH STOVE, ETC.—(*See preceding page.*)

the removal of such impurities, as have been referred to, and which are constantly generated, wherever there is animal life and burning fires, and the due supply of that vital principle, which is constantly consumed by breathing and combustion. The first can be in no other way effectually secured, but by making provision for its escape into the open air, both at the top and the bottom of the room; and the second, but by introducing a current of pure air from the outside of the building, warmed in winter by a furnace, or in some other mode, before entering the room. The two processes should go on together, i.e., the escape of the vitiated air from within, and the introduction of the pure air from without. The common fire-place and chimney secures the first object very effectually, for there is always a strong current of air near the floor, towards the fire, to support combustion, and supply the partial vacuum in the chimney occasioned by the ascending column of smoke and rarified air, and in this current the carbonic acid and other impurities will be drawn into the fire and up the chimney. But there is such an enormous waste of heat in these fire-places, and such a constant influx of cold air through every crevice in the imperfect fittings of the doors and windows, to supply the current always ascending in the chimney, that this mode of ven-

tilating, by opening a window or door, although better than none, is also imperfect and objectionable; as the cold air falls directly on the head, neck, and other exposed parts of the body, when every pore is open, and thus causes discomfort, catarrh, and other more serious evils, to those sitting near, besides reducing the temperature of the whole room too suddenly and too low. This mode, however, should be resorted to at recess.

OPENINGS FOR VENTILATION.—There should be one or more openings, expressly for ventilation, both at the top and the bottom of the room, of not less than twelve inches square, capable of being wholly or partially closed by a slide of wood or metal, and, if possible, these openings, or the receptacle into which they discharge, should be connected with the chimney or smoke-flue, in which there is always a column of heated air. By an opening in or near the ceiling, the warmer impurities (and air when heated, and especially when overheated, will retain noxious gases longer) will pass off. By an opening *near the floor*, into the smoke-flue, the colder impurities (and carbonic acid, and the other noxious gases, which at first rise, soon diffuse themselves through the atmosphere, cool, and subside toward the floor) will be drawn in to supply the current of heated air and smoke ascending the chimney. These openings, however, may let cold air in, and will not always secure the proper ventilation of a school-room, unless there is a current of pure warm air flowing in at the same time. Whenever there is such a current, there will be a greater economy, as well as a more rapid and uniform diffusion of the heat, by inserting the outlet for the vitiated air near the floor, and at the greatest distance from the inlet of warm air.

EVILS OF LOW TEMPERATURE.—There is a mischievous error prevailing, that if a room is kept at a low temperature there is no need of ventilation. Dr. Alcott mentions the case of a teacher, who when asked if she did not find it difficult to keep her room ventilated, replied, "not at all, it is one of the coldest rooms in the city." The necessity of ventilation arises from the consumption of the oxygen, and the generation and accumulation of carbonic acid, principally in breathing, and both of these processes can go on and do go on, in a cold room, as well as in a warm one, if human beings are collected in it, and goes on rapidly and fatally according to the number of persons and the size and closeness of the apartment.

IMPORTANCE OF UNIFORM TEMPERATURE.—But whatever may be the mode of warning adopted, whether by open fireplace, or grate, stove wood or coal, or furnace, the temperature of the room should be uniform, and of the proper degree in every part. Not a child should be exposed to sudden and extreme changes of temperature, or compelled when overheated, or at any time, to sit against an inlet of cold air, or, with cold feet. This last is a violation of an indispensable condition of health. To secure a uniform temperature, a thermometer will not only be convenient, but necessary. It cannot be ascertained, for different parts of a room or for thirty or forty persons, differently circumstanced as to heat or cold, or differently employed, some of whom are seated, some standing or changing, their position from time to time, without some less variable and uncertain standard than the teacher's feelings. However anxious he may be to make every scholar comfortable, he cannot be conscious at all times of the differing circumstances in which they are placed. He is not exposed to the rush of cold air, from a broken or loose window, or from cracks in the ceiling or in the floor. He is not roasted by a seat too near the the stove. He is not liable to a stagnation of the blood in the feet from want of exercise or an inconvenient bench. Even though he were capable of thus sympathizing with them, the temperature of the room after the fire is thoroughly going, and the doors closed, may pass gradually from 65° to 70° without change being perceptible. Now though we may breathe freely in such an atmosphere, gradually heated, we cannot pass into the open air 40° or 50° colder, as would be the case on most winter days, and much less receive a current of such air on a portion, and a sensitive portion of the body, without great danger. With a thermometer in a room, the beginning and progress of such a change would be indicated, and could be guarded against.

BEST MODE OF VENTILATION.—The best mode, however, at the same time of warming and ventilating a school-room, especially if it is large, is by pure air heated in a stove or furnace placed in the cellar or a room lower than the one to be warmed. No portion of the room, or the movements of the scholars, or the supervision of the teacher, are encumbered or interrupted by stove or pipe. The fire in such places can be maintained without noise and without throwing dust or smoke into the room. The offensive odors and impurities of burnt air, or rather of particles of vegetable or animal matter floating in the air, are not experienced. The heat can be conducted into the room at different points, and is thus diffused so as to secure a uniform summer temperature in every part of it. A room thus heated, even without any special arrangements for this object, will be tolerably well ventilated, for the constant influx of warm pure air into the room will force that which is already in it out at every crack and crevice, and thus reverse the process which is ordinarily going on in every school-room. By an opening or rather several small openings into the ceiling, or a flue, which in either case should connect with the outer air, the escape of the impure air will be more effectually secured.

PART V.—INTERIOR OF SCHOOL HOUSE; SCHOOL FURNITURE, SEATING, &c.

In the selection of plans for and the construction of school furniture, it is recommended that Trustees consult some experienced teacher on the subject, and visit schools which contain articles of an appropriate kind. Having thus made their selection, the furniture should either be constructed by some person engaged in the business, as in Toronto, Markham and Oshawa, or according to the plan and form of a model article of each kind, procured for that especial purpose.

For the arrangement of furniture no specific directions can be given which will meet all cases. Most houses and schools will require certain modifications to suit local or peculiar circumstances. Here again, the experienced judicious teacher will be found to be the safest adviser.

There are, however, certain general principles both of construction and arrangement, governing this subject, which should never be violated. These will be indicated in their proper place; leaving details to the circumstances of each case.

The accommodations for a school-house, embraced under the head of furniture, may be divided into three classes. 1. Those relating to the general care of the building, which chiefly have their place in the entry and clothes-rooms. 2. Those connected with the purposes of the principal school-room. 3d. Those of the gallery or class-rooms.

ENTRY AND CLOTHES ROOM FURNITURE.

THE SCRAPER.—The space immediately in front of every school-house should be paved with brick or stone, covered with plank, or the surface, by some other appropriate means, rendered smooth and so hard as to resist the action of the rain and frost. On this space the steps or platform leading to the door will be placed, and either will be incomplete without a strong, convenient shoe-scraper at each side. Two will be required, for the reason that the pupils enter the school, morning and afternoon, about the same time, and if there be only one scraper, it will either cause delay or compel some to enter the building with soiled shoes. Cleanliness and neatness are amongst the cardinal virtues of the school-room; and every means of inculcating and promoting them should receive the earliest and most constant attention.

THE MAT.—After the rougher and heavier portion of the mud has been scraped from the feet, a good rubbing on a coarse mat will not only remove the balance, but aid in drying the shoes, so that there will be less danger from wet and damp feet than would be experienced without this precaution. In addition to this, there will thus be less of that annoying dust in the school-room, which, when present in large quantities, is constantly kept afloat in the air, to the great discomfort of the inmates and to the injury of clothes, books and lungs. A pair of mats, or two pair in a large School, to be used alternately—one to be dried and beaten free of dust while the other is in use—may be made of corn-husks or straw. If the teacher manage properly, mats, quite sufficient for the purpose, will be readily made or provided by the larger pupils in turn, if they can be had in no other way. These rough mats should be placed just inside the main entrance door; and if the female pupils were to prepare a rag mat to be laid inside of or near the door leading from the entry or vestibule into the school room, for a second wiping of the feet, the precautions against dust in the room would be complete. The use of the scraper and mat should in all cases be insisted on, and every pupil entering with soiled feet should be sent back and made to clean them.

THE WASH-BASIN.—Children often soil their hands in play, and some even come to School with unwashed hands and faces and uncombed hair. Such should never be permitted to enter the school-room, till all the requirements of outward decency are complied with. In the country it will generally be too far to send them home again for that purpose; and therefore preparation for it should be found in the school. Hence, a tin basin on a shelf in the corner of the entry of a small school, a wash-stand in a larger building, or a regular wash-closet in one of the highest class, becomes proper. Soap and towels will also be indispensable; and if not provided by the section, they should be by the pupils, for whose use and benefit they are alone needed.

BUCKETS.—Every school should have two buckets—one for drinking water with cup near it, and one for washing and scrubbing purposes.

BROOM AND BRUSHES.—No school however small or plain, should be without a broom for sweeping the floor at least twice a week, and if daily, the better. Large buildings should also have a hair sweeping or floor brush, and a cobweb brush or ceiling duster with a long handle.

To this list should also be added a scrubbing brush for the floor and a white-wash brush for the walls; and the more they are all used, the better for the health and habits of the pupils.

Umbrella Stand.—In wet weather the entry, or the corners of the school-room, are often flooded with the drippings of Umbrellas. The one-half of a water tight barrel placed in one corner of the entry, would receive the umbrellas of the whole school, and prevent this annoyance. In the larger schools something more complete should be found. A water-tight trough one foot wide and one foot deep, and two, three or four feet long, according to circumstances, painted inside and out, with four legs a foot high, and a guard or slat around it about one foot above the top edge for the umbrellas to lean against, would be a neat article of furniture, cost but little, and contain a large number of umbrellas. There should also be a hole in the bottom of it, with a cork to run off the collected water into a bucket.

Fire-irons.—If the school is heated by means of a wood stove, a pair of tongs and a fire shovel, with an ash-bucket or pan, will be indispensable. If coal is used, a pair of tongs will also be necessary, with a small shovel and a poker, a coal scuttle and a sieve for the cinders. In both cases an axe and a saw to cut the wood or the kindling, will also be needed.

Clothes Hooks.—In all new school-houses enough of these to allow one for each pupil, should be embraced in the contract for building. In old houses they should be at once put up. One should be assigned to each pupil and numbered. and each should be required to use his or her own, as in the Model School, Toronto. There is a very cheap kind of cast iron hooks, which are rarely worth the tronble of fastening to the wall. They break off with the slightest degree of strain. The better kind should be procured, or wooden pins, well slanted upwards, should be used.

Dinner Closet.—In the country many pupils, living at a distance, necessarily bring their dinners with them, and require a safe and fit place for it, during the forenoon. A closet, with a lock and key, should be placed in the entry or clothes room for this purpose. When this is done, the closet should be locked by one of the pupils appointed for that purpose, after all are in. Thus the baskets will be properly and safely kept, and the untidy practice of having them standing under the desks or along the walls in the school-room, avoided. This will also prevent those liberties being taken with the dinner baskets by mischievous pupils while passing in and out during school hours, which often create disturbance, when the baskets are left in the clothes rooms without being lecked up.

Mode of Obtaining these Articles.—Several of the articles just named are indispensable and will not be refused by any Board of Trustees. Others may be. In that case it will be in the power of the teacher, by showing a disposition to keep the school-house in good order and condition, and by a respectful representation of the utility and necessity of additional articles, to induce a reasonable Board to allow them. If not, he has the pupils to appeal to. By proper explanation of the uses and value of the desired conveniences, and of the habits dependent on them, he will rarely fail in creating such a feeling in the school as will supply all that is reqnisite, till the Trustees shall discover their own duty in the matter.

Mode of Using these Articles.—Most of them, such as scrapers, mats, basins, buckets, fire-irons, clothes-hooks and dinner closets, are in daily use, and only require a little constant attention on the part of the Teacher, to render them greatly conducive to the neatness and good condition of the school, and of the formation of right habits. But others, such as brooms, sweeping brushes, scrubbing and cob-wed brnshes, and above all white-wash brushes, only come into use occasionally, and will require an effort on the part of the teacher to develop their full use and value. But this effort, if properly made, will be its own reward. If the larger pupils be requested to meet the teacher in the school-house during a Saturday forenoon once a month, or even every six weeks, for a general sweeping, scrubbing, and, if necessary, white-washing, the effect on the school—both personal and material—will be found most salutary, and the object will be accomplished. Children like to feel themselves of use to those whom they respect, and, if properly governed, they delight in improving their own things. The teacher is their best friend and the school is their own. Their nature will incline them, if it be properly guided, to oblige the one and beautify the other.

In addition to this thorough cleansing, there should be a general arrangement of the books, apparatus, furniture, &c., of the school-room every Friday afternoon, before dismissal for the week.

II.—SCHOOL-ROOM FURNITURE.

Seats and Desks.—These constitute the main portion of the furniture of the room, and upon their form, construction and arrangement, will depend much of the comfort of the pupils and the order of the school.

Certain conclusions have been arrived at with reference to seats and desks, by the experience of well conducted schools, which may now be admitted as settled principles applicable to all schools. These ar

1. That every pupil, whether old or young, should have a desk as well as a seat; 2. That both should be made as comfortable and as well adapted to their object as possible; That the seats and desks should be so arranged as to permit each pupil to pass to and fro from his own, without disturbing any other in so doing. To these may be added, 4. That the more neatly and substantially the seats and desks are made at first, the longer they will last, and the greater will be the saving to the district in the end.

The desk is as necessary for young as for older pupils, for several reasons. Children should not be long confined to one attitude—frequent change of position seeming to be a want of their nature. After sitting upright in their seats for some time, they soon lean on the back of the chair or bench; but this posture before long also becomes tiresome, and they will be observed to lean sideways upon each other. At this time it is that restlessness and disorder begin to manifest themselves amongst the younger pupils, and at this time the forward support afforded by the desk, both for the person and the book, would form a relief to the scholars and tend to the quiet of the School. Moreover, it is now admitted by all good teachers that the slate and pencil should be put into the hands of every pupil the very first day of his entrance into School; and this renders a desk indispensable, if for no other reason.

To render the seat and desk comfortable and convenient, both should bear a proper proportion in height and form, to the size of the pupil; so that when seated, his feet should rest firmly on the floor, and his arms should have easy action on the desk, without either raising them above the proper level for free use, or compelling him to stoop so as improperly to bend the body and contract the chest. The seat should in all cases have a comfortable back, and be slightly higher before than behind, so as to give a firm position to the person upon it. The desk, being designed to retain the books or slate without the necessity of holding them upon it with the hand to prevent them from sliding off, should be very slightly inclined from front to rear, with a level space at the extreme rear ~~for pencils, pens, &c.~~

It needs no argument to show that every pupil should have free access to his own seat. This is generally admitted with regard to the older scholars; but it is equally if not more requisite, in the case of the younger, who are more uneasy and require to leave their places more frequently. This object can only be effected by the use of single or at most double desks—that is desks at which no more than two pupils sit. The former would be the more desirable in all cases; but as they occupy too much floor space, when arranged with a passage at each end, the double desk is now in use in all, except the highest grade of schools.

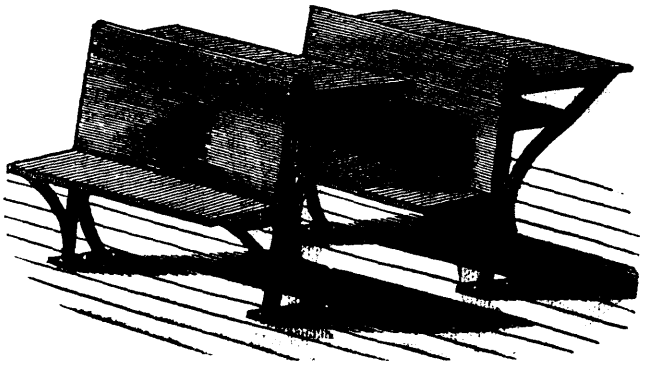
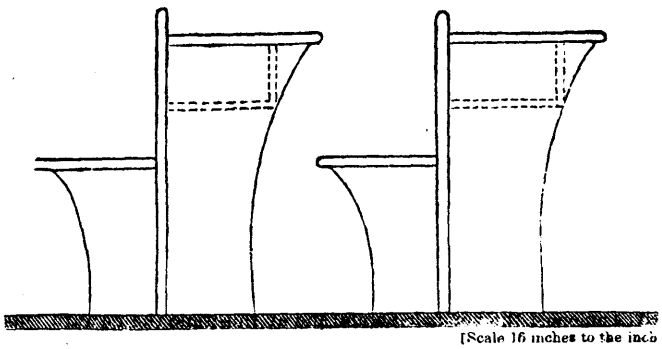


Fig. 1.

Seats and Desks for Primary Pupils.—Various kinds are now in use for this class of pupils; all seeking to unite comfort with neatness and durability. The combined seat and desk represented by Fig. 1, seems to comprise all these requisites. The legs or staunchions are of cast iron and the remainder of wood. The seat of one pair of pupils is connected with the desk of the pair behind them, but the whole being firmly secured to the floor, will not be liable to shake, so as to cause disturbance to either. Properly constructed and handsomely painted, this would form a neat as well as comfortable article of furniture.

We next present two engravings of seats and desks of a similar construction. It will be seen that the upper surface of the desk in Fig. 2 is level; and that of Fig. 3 is sloped, except about three inches of the most distant, being the ratio of one inch in a foot. The edges of the seats are in a perpendicular line with the front of the seats.

Each pupil should be provided with a seat and desk properly adapted to each other, as to height and distance, the front of the latter constituting the back or support of the former—as shown in Fig. 3. The desk should slope about 2½ inches in 16, as indicated in the same Figure. The seats should vary in height from 9½ inches to



[Scale 16 inches to the inch

FIG. 2.—SECTION OF SCHOLARS' DESKS AND SEATS.

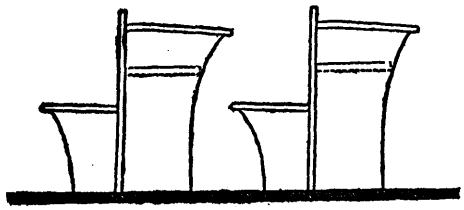


FIG. 3.—SECTION OF SEAT AND DESK.

17, for children of different sizes and ages—the youngest occupying the seats nearest the platform. The seat should be so made, that the feet of every child, when properly seated, can rest on the floor, and the upper and lower part of the leg form a right angle at the knee; and the back of the seat, whether separated from or forming part of the adjoining desk behind, should recline to correspond with the natural curves of the spine and the shoulders. The seat should be made as far as possible like a convenient chair.

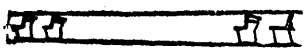


FIG. 4.—SECTION SHOWING VARIATION IN HEIGHT.

GRAMMAR SCHOOL SEATS AND DESKS.—Though the double seat in connection with the double desk, is yet used in some schools of the highest grade, yet the inclination is general in favor of the single seat. The one now presented, Fig. 5, seems to be desirable in every respect, except that the chair does not revolve; some teachers preferring the stationary or unrevolving seat. It shows a seat and desk differring much in form yet the same in principle as the last, except that the desk has an enclosed box covered with a hinged lid, for each pupil. Some teachers prefer this arrangement, but the majority do not favor it, as the raising of the lid interposes a screen between the teacher and pupil, behind which acts may be performed which would not be openly attempted; while the opening and shutting of the lids cannot but create noise. The desk with a stationary lid, a shelf beneath, and a slit in the back for a slate, seems to meet the views of the greater number of teachers.

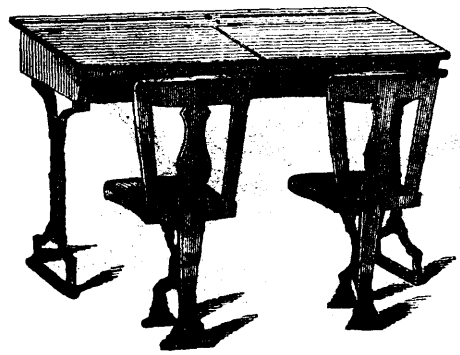


FIG. 5.

In connection with either of these Grammar School desks, a revolving chair, one of which is shown further on, may be used; and if properly constructed, it will be found easy and pleasant.

The furniture for the best Grammar School will necessarily be largeri and generally of a more elaborate style and better finish than that of the lower grades. Whenever floor space will allow, none but single seats and desks should be used; but if the double kind is adopted, Fig. 6 represents a beautiful and appropriate form. The desk is large and capacious, and its staunchions are so well thrown back as not to interfere with the knee in passing to and from the seat.

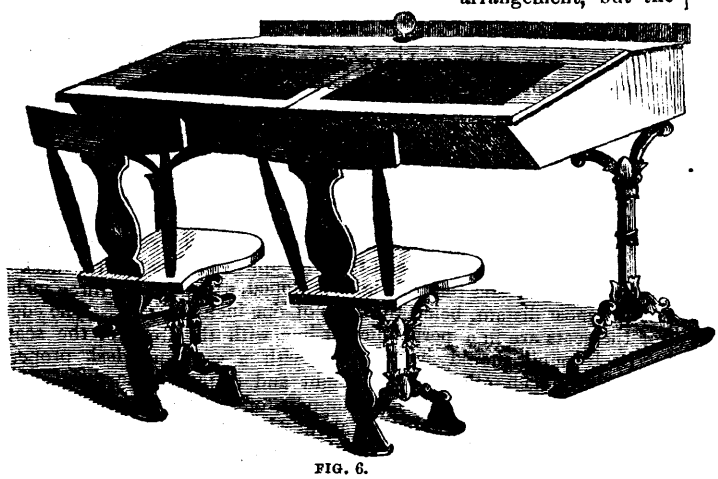


FIG. 6.

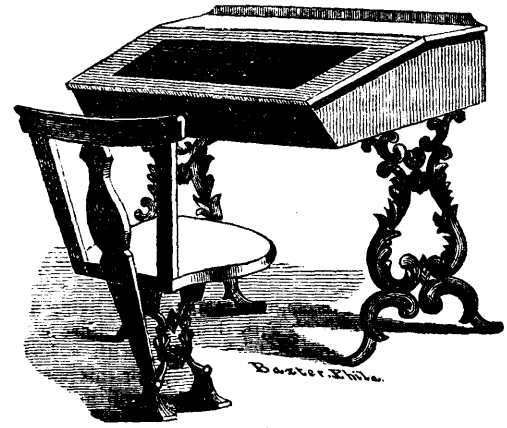


FIG. 7.

The single seat and desk shown by Fig 7, is of similar style, and intended for the same grade of school as the last. It has a lid or fall to the desk, a stationary seat, and seems to afford ample room to the occupant, and great convenience for study and the other duties of the school. It is strong and durable, as well as beautiful in appearance.

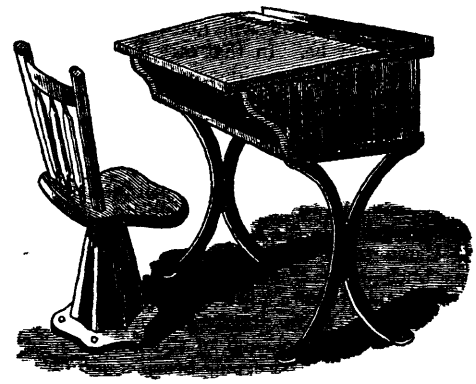


FIG. 8.

The desk in Fig. 8 has no lid, but an open shelf below for books, with a slit in the back part for the slate. Both the stanchions of the desk and the base of the chair are of east iron, screwed to the floor. The box forming the desk is attached to the stanchions by the four light bolts, passing from the top of the box through the heads of the stanchions, and secured by a nut and screw from beneath; the head of the bolt being let into the desk top and covered with putty before painting. The seat and back of the chair are precisely those of the common Windsor chair, which the pupil uses at home. On the bottom of the seat, a pivot of wrought iron three quarters of an inch in diameter by three inches in length, inserted in a cast iron plate four inches square and three eighths of an inch thick, is fastened by means of four one inch screws. This pivot plays into a corresponding socket in the head of a cast iron base; the top of the base being slightly rounded, or convex, to allow a small degree of rocking motion and make the chair revolve easily. A piece of leather is put on the pivot to prevent noise in revolving. The chair is not fastened to the base, but may be lifted off when the room is to be swept or scrubbed. [See Fig. 9:] Desk stanchions and chair bases of four different heights, each in succession

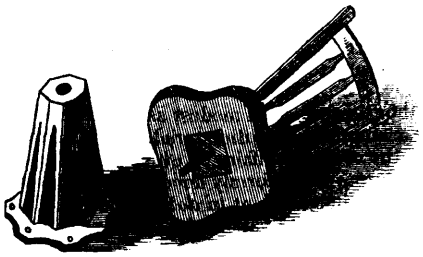


FIG. 9.

one inch higher than the other, are made to suit the different sizes of the pupils.

RELATIVE SIZES OF SEATS AND DESKS.—The desks and seats for pupils should be of different dimensions. We think it most desirable for two to sit together; and each desk for two may be 3½ or 4 feet long. The younger pupils being placed nearest the master's desk, the front ranges of desks may be 13 inches wide, the next 14, the next 15, and the most remote 16 inches, with the height, respectively of 24, 25, 26 and 27 inches. The seats should vary in like manner—those of the smallest class should be 10½, the third 11, the fourth or largest class 11½ or 12 inches wide; and being, in height, 13, 14, 15 and 16 inches respectively. All the edges and corners should be carefully rounded.

The desk for a single pupil should be, at least, two feet long (2½ is better) by 18 inches wide, with a shelf beneath—as indicated by the dotted lines in Fig. 3—for books, and a narrow deep opening between the back of the seat in front of the desk itself to receive a slate—as at *b* in Fig. 10. The upper surface of the desk, except three inches of the part nearest the seat in front, should slope one inch in a foot, and the edge should be in the same perpendicular line with the front of the seat. The three inches of the level portion of the surface of the desk should have a groove running along the line of the slope, *a*, Fig. 10, to prevent pencils and pens from rolling off, and an opening at *c*, (same Fig. to receive an inkstand, which should be covered with a metalic lid. The end pieces or supporters of the desk should be so made as to interfere as little as possible with sweeping.

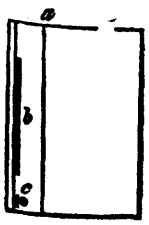


FIG. 10.—TOP OF DESK.

The following table is said to show pretty accurately the proportion which should exist between the heights of seats and desks for the various sizes of pupils; the corresponding width and length of the desks; and the proper distances between desks of the same size in the same row, so as to admit the chair between them.

Height of seat.	Height of front of desk.	Width of desk.	Length of desk per pupil.	Chair space between desks.
10 inches.	21 inches.	12 inches.	17 inches.	20 inches.
12 "	23 "	13 "	19 "	22 "
14 "	25 "	14 "	21 "	24 "
16 "	27 "	15 "	21 "	26 "

THE INK-WELL.—The ink-stand or well is an indispensable accompaniment of the desk, and, if not of a proper form or properly secured, often gives much trouble. A loose ink-stand or bottle on a small desk, the greater part of whose lid is considerably inclined, is liable to be upset or thrown off. A wide mouthed glass cup with a rim to it, and let into the corner of the desk, is secured from falling or upsetting, but receives the dust of the room to the injury of the ink. Hence one let into the desk, with a hinged lid or cover, so arranged as to exclude the dust and yet not to be in the way of books, slates, &c., when closed, seems to be the best and cheapest expedient that can be adopted. Many wells have been prepared for these purposes. Fig. 11 in the margin will serve to convey the idea, without further explanation.

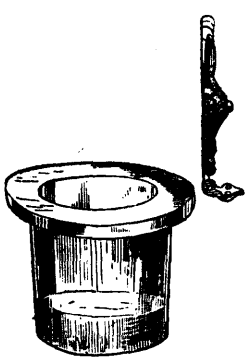


FIG. 11.

ARRANGEMENT OF SEATS AND DESKS.—It has been frequently suggested that, in arranging the furniture of a school-room, the pupils sh uld be faced towards a wall containing no windows, or, if any, that they should have close blinds or curtains; and that if possible this should be the north wall. It is also believed that the teacher's platform and desk should be across the end and not the side of the room; thus throwing the whole of the pupils more in front of him.

In all schools, but especially in those of mixed studies and ages, there should be seats and desks of different heights to suit the respective sizes of the pupils. In such cases the smaller seats for the younger pupils should be placed in front,—that is nearest the teacher's desk,—in order to have them more under his eye and control.

Seats and desks should never be allowed to touch the wall. If the size of the room will not allow a full passage next the wall, the desk should be kept at least six inches from it, both to allow the pupil near it the free use of his arm, and to keep him from contact with the damp cold wall.

The following plate represents a new mode of arranging seats and desks, intended to save floor space without the use of the double desk. If found satisfactory in other respects, it will have the additional advantage of allowing more room for passages, and particularly for a wide middle passage, and for outside passages along the walls. The dividing or partition board seems liable to the objection of somewhat interfering with the arm in writing, unless the top of the desk be very large.

The engraving on page 72, represents the plan so plainly, that very little more is required to be said respecting it.

By this new arrangement two rows of desks are combined together, with a separating partition between them; or, with a standard at each end, the partition may be dispensed with. Two rows of desks, *A A* and *C C*, are shown, cennected to each partition board, *D*. The teacher's desk is represented at *E*; *B* are the seats of the scholars at the desks; *a a* are the desk standards. Each scholar's desk is arranged opposite the seat space of the opposite scholar, thus separating them, and preventing playing and whispering.

By this arrangement as many scholars can be seated at single as at double desks, and they will only occupy the same floor room. There is also a gain over single desks as arranged in the common way in schools, by seating forty-eight scholars, with these desks, in the same space as thirty-six are commonly seated. The desks and chairs are arranged diagonally on the floor, so that no one scholar can see the face of another without one of the two being at right or left half face. When the school is called to procession, all can rise at once, and step into files in the aisles, without coming in contact with one another. Scholars are more directly under view of the teacher, and can therefore be kept in better order.

(To be continued.)

Papers on Practical Education.

(Continued from page 67.)

THE METHOD OF QUESTIONS.

A teacher must know how to ask questions. For of all the stimulators to the acquisition of knowledge, of all fertilizers of the brains of childhood, youth or age, and of all the quickeners of thought and invention, those sentences that end with the *point* of interrogation are decidedly the best Such points are soon felt, and never felt but to profit, when skilfully used. And in all that has been said of methods in teaching the subjects already recommended, it has been one special aim to keep this important usage before the minds of all who interest themselves in schools—whether they are teachers, examiners, visitors and parents, or mere lookers on, desirous of the truest prosperity of our schools. Questions give the whole life and zest to a school exercise, and as a teacher can use them effectually, so will be his power to interest, to arouse, to instruct. But they cannot be used by an idle or a lazy man; nor by one who does not study to the very bottom of every topic he attempts to teach. And by them alone without text book—aided by a blackboard for himself, and a slate and pencil, or pen, ink, and paper for the scholar, almost any subject may be well taught, and be made to glow with interest. I gave an illustration of the proper method of questions, under the head of teaching definitions, and it may be well to speak further here.

That is only one example of the true method to be pursued in teaching by questions, and it will apply to the business of giving instruction on every other subject. It is leading the pupil to invent or find out for himself whatever he is required to recite, and it demands that as soon as a scholar is set to learn a task from the book or commit a lesson, that lesson or task shall be explained to him before he sits down to it; and it also plainly suggests that almost everything is best explained to a child—as indeed it is to everybody—by asking questions which he can easily answer for himself. This was the method of Socrates and of Plato, founded on one of the most profound and fascinating of all philosophical conjectures, that all our knowledge consists but of fragmentary reminiscences of the magnificent intellectual treasures which we possessed in a previous existence; and that it needs but the proper questions, put to us under the proper combination of circumstances, to bring to light all those treasures, buried though they are, under no man knows what depths of rubbish and ruin. Ridicule this doctrine as we may—and if we use it for any other serious purpose than a figure of speech, it is supremely ludicrous—yet still its virtual assumption does indicate the only philosophical method of imparting knowledge to children; and it does indicate, that a thoughtful and a skillful teacher may communicate almost any information he wishes to impart by very simple questions; and the greater part of these questions shall not be in the category of those very silly leading ones, which the pupil may answer, when half asleep, by grunting out "yes," or "no." Where the information to

be given is a *fact*, as "the population of New York," "the name of the Queen of England," or the like, of course the only way is to tell it at once, yet here the desire for the information should first be aroused. But where the information is of that kind which calls into operation the reasoning or the judging faculty, then this method of putting questions will always accomplish its purpose of leading the scholar to find out for himself all that is required of him; provided he has rightly gone over the premises or elements necessary for the reasoning process which is to develop or lead to the conclusion.—*Annual Report of R. I. Commissioner of Public Schools.*

INSTRUCTION AND EDUCATION.

There is much comprehended in the words instructor and educator. Happy the country and the people that firmly grasp and earnestly appreciate it all—thrice happy they when the names of their instructors suggest, and are associated with the highest conceptions of all that the term should represent.

Were we called upon to state in expanded form the ideas involved in these terms, we are persuaded that we would be greatly aided in the execution of the task by studying your character, and the impressions you have in various ways, made upon us. And did we, or could we, but truly and faithfully report, simply as matters of fact, the result of our observations and analysis, we feel assured that we should have somewhat successfully performed the duty assigned us.

Some of the things which enter, more or less, into the conception we have learned to form of a thoroughly qualified instructor and successful educator, are,—extensive, varied and accurate acquirements—clear and comprehensive views of truth and duty—sound and enlightened discrimination—a determined disposition to give prominence to principles rather than mere particulars—facility of illustration and ready command of appropriate language—indomitable industry and perseverance—irresistible energy—power of endurance—self-government and control—glowing patriotism—animation and uniform good nature—a sensitive jealousy of error and an ardent and habitual love of truth—earnestness, simplicity, frankness and kindness of manner—tender and ready sympathy directed and regulated by a quick perception and appreciation of the various shades of character and peculiarities of disposition—a rigid exaction of duty and enforcement of discipline, generously tempered by a due allowance for shortcomings, and tender consideration for the feelings,—a highly cultivated social nature, constituting a centre of genial influences that attract and gladden far and wide—a life and conduct impelled and dignified by the sovereign ascendancy of religious principle and devout aspiration—a power of analysing the secret springs of action and scrutinizing hidden relations—of awakening generous emotions and inspiring lofty purposes—of eradicating unworthy motives and principles of action, and arousing the soul to adequate conceptions and penetrating it with profound convictions of its responsibility and mysterious destiny.—*Students' Address to Rev. Wm. Ormiston, M. A.*

MORAL COURAGE.

A discourse was recently delivered on this subject before the Young Men's Christian Association of Philadelphia, by the Rev. Dr. Boardman of that city. The reverend author's theme is suggested by the noble reply made by the three young Hebrews to Nebuchadnezzar, when, on penalty of prompt destruction, they refused to prostrate themselves before the large idol which that monarch had set up. The text is happily selected, for it records perhaps the highest examples of moral heroism which history, sacred or profane, affords; and it has the more force as an illustration of a great principle in that it supplies not a single or individual instance of its operation, but a galaxy of persons and characters all prompted to the same decision by the operation of the same moral law. It is a fair presumption that the three young men differed in some degree in mental organization, in moral susceptibility and in intellectual capacity, and the unanimity of their decision affords a strong illustration of the uniform power of religious principle.

A fine picture of the circumstances in which these young men were placed is drawn by Dr. Boardman in the opening of his discourse, and he defines moral courage as "the principle which prompts a man to *perform his duty*, leaving the consequences with God." In this it differs from mere courage, which is but an animal quality; moral courage being that which "has to do with morality in its essential principles, and with moral questions in its exercise." The author justly says that "many a man has accepted a duel because he had not the moral courage to refuse it. Many have marched to the assault of a battery, sword in hand, who would have fled from the mouth of the fiery furnance and prostrated themselves before Nebuchadnezzar's image." Moral courage, however, may exist without true piety, the case of Regulus being an example in point. Its surest basis, however, is intelligent Christianity—an appreciation of God and the things of God its purest source,—as this elevates the man and gives stability and uniformity to his character. The man impregnated with this practical belief in the truth of a living Christianity "will have a deep and earnest sense of *duty;* and will not only recognize his obligation to do right, but will from the *the love of right and truth*, steadfastly endeavour to do whatever God may require at his hands."

Moral courage, our author teaches, is as modest as it is firm. True, moral heroism is neither clamorous nor dictatorial. It is further a virtue to be exhibited in the ordinary affairs of every day life. It is a foe to indecision in every form; is uniformly opposed to all chicanery and craft, and is energetic and independent in *doing right.* Especially is it at war with the too prevalent passion for popularity. There is much justice as well as candor in the following remarks:—

The concession must, unhappily, be made, that the Church is not exempt from an inordinate desire to conciliate popular favor and applause. Much of the zeal, it is to be feared, which displays itself in a bustling and really useful activity about good objects, is more or less tainted with a subtle craving after notoriety. Little as they themselves may suspect it, Christian professors would sometimes discover, if they could see themselves, even as others see them, not to say as Omniscience sees them, that the principal motive which animates some of their most imposing actions, is a desire to be *seen* of men. Take them out of the conspicuous and stirring scenes in which Providence has placed them; conduct them where there is no partial friends to chronicle and applaud their achievements; throw them upon a sense of duty and the honor which cometh from God, as their incentives to exertion; and how you would clip the wings of their zeal, and dwarf them down into commonplace Christians. Yet this is a test which we ought to be able to bear. It is a test which every one who possesses real independence and moral heroism in an exalted degree would bear.

* * * * * * * *

An extreme complaisance to the opinions of the world as opposed to true independence of character, is especially to be deprecated in men holding official stations or exercising the functions of public teachers. It has often made Christian ministers suppress offensive doctrines and precepts, and led them to gloss over the vices of the great and to cry peace, where God had said there was no peace. It has impelled legislators to advocate measures which in their hearts they disaproved, and to oppose enactments which they were secretly persuaded would be for the public good. Even the Bench has not been undefiled in this matter.

It requires no small degree of firmness to enforce obnoxious laws; and the impending displeasure of the populace has extorted from many a magistrate, decisions which cost him bitter reproaches of conscience. Here, indeed, beyond almost any situation, moral courage, combined with integrity, is of unspeakable value; and it is a public calamity when any man is raised to the Bench who, whether from constitutional timidity, party affinities, sordid propensities, or other cause, is deficient in this quality. The liberties of a people are no longer safe, whatever their written characters and statutes, when justice ceases to be administered by men who, to competent talents and professional culture, add unspotted probity and invincible courage. —*N. Y. Commercial Advertiser.*

Miscellaneous.

GOOD ADVICE.

In reading authors, when you find
Bright passages that strike your mind,
And which, perhaps, you may have reason
To think on at another season,
Be not contented with the sight,
But take them down in *black* and *white;*
Such a respect is wisely shown
That makes another's sense one's own.

In conversation, when you meet
With persons cheerful and discreet,
That speak, or quote, in prose or rhyme,
Things or facetious, or sublime,
Observe what passes, and anon,
When you come home think thereupon;
Write what occurs, forget it not,
A good thing sav'd 's a good thing got.

—*Notes and Queries.*

THE POWER OF MUSIC.

In looking ever an old "newspaper" printed several years ago, I came across this beautiful piece, which struck me as being true to nature.

"Could n't, cos he sung so!" Leaning idly over a fence a few days since, we noticed a little four-year old "lord of creation," amusing himself in the grass by watching the frolicsome flight of birds,

which were playing around him. At length a beautiful bobolink perched on a bough of an apple tree, which extended within a few yards of the place where the urchin sat, and maintained his position apparently unconscious of his close proximity to one whom birds usually consider a dangerous neighbor.

The boy seemed astonished at his impudence, and, after regarding him steadily for a minute or two, obeying the instinct of his baser part, he picked up a stone lying at his feet, and was preparing to throw it, steadying himself for a good aim. The little arm was drawn backward without alarming the bird, and "bob" was "within an ace" of danger, when lo! his throat swelled, and forth came nature's plea: "a-link, a-link, a-link, bob-a-link, bob-a-link, a-no-sweet, a-no sweet! I know it, I know it, a-link, a-link, don't throw it, throw it, throw it," &c.,—and he didn't! Slowly the little arm fell to its natural position, and the now despised stone dropped. The minstrel charmed the murderer! We heard the songster through and watched his unharmed flight, as did the boy, with a sorrowful countenance. Anxious to hear an expression of the little fellow's feelings, we approached him, and inquired, "Why didn't you stone him, my boy? you might have killed him, and carried him home."

The poor little fellow looked up doubtingly, as though he suspected our meaning, and with an expression, half shame and half sorrow, he replied:

"*Could n't cos he sung so!*"

Who will say that "music hath no charms to soothe the savage breast," or aver that God hath not made melody to move the purer fountains of our nature, to awaken those sympathies that are kindred to Heaven, the Angels, and to God himself. Let the sweet tones of music break upon the ears of the dull school boy, and he will awake with new life and energy. Pour the notes of melody into the ears of the wilful child and you disarm him; the stone will fall from his heart, and he will become obedient and attentive. Let music be the first to break the silence of the school-room in the morning, and the chords of young hearts that are put in motion will continue to vibrate during the day. Happy will be the time, when not only the tones of our school-bells can be heard all over the land, but when the notes of our school-children, in the morning, breaking upon the silent atmosphere along the Atlantic coast in the East, shall reverberate along the Gulf of Mexico, and the echo be heard in California.—*Indiana School Journal.*

SPEAKING AND SINGING.

Little or no attention is paid to the tone in which children speak; consequently they too often contract bad habits of intonation from the earliest age; and, as they grow up, what is mere habitual tone is mistaken for their natural voice. From this inattention to intonation in early years proceeds much difficulty in the voice for singing; and it is not unfrequently the cause of diseases of the throat and chest. It is but a part of this evil system that a most injurious habit prevails among the young ladies of the present day, of speaking in a subdued muffled tone, or what might be called a a semi-falsetto, in consequence of which very few natural voices are heard. It must be understood I speak more particularly of English ladies, as foreigners generally speak in the natural tone of their voice. I have no hesitation in saying that hundreds of young ladies bring upon themselves serious chest affections from a bad habit of speaking and singing.—*Signora Ferrari.*

A WISE USE OF MONEY.

It is said that Harvard University has received during the past year upwards of $90,000 in donations. Other eastern colleges have also received large gifts, nor have western institutions been wholly forgotten. More than $15,000 have been given in Chicago to endow one institution, and a citizen of our own State has recently left $20,000 to another Chicago College. The generous banker, George Peabody, having munificently endowed a high school in his native town, Danvers, has now given a princely donation to the cause of education in Baltimore. We record these instances of a wise use of wealth that they may meet the eye of others of our rich men.

What nobler use of money, than to invest it in institutions which shall abide for ages, pouring their light and truth along the pathway of untold generations! Is it a joy to live still, in the grateful memories of our fellow men, when our bodies rest beneath the sod, and to bear part with the generations that come after us, in the ever growing and glorious work of our world's redemption from ignorance and sin; then it is wise to purchase ourselves "eternal habitations" in the homes of learning and the hearts of the thousands of successive generations educated by our liberality.

It is a wonder to us that more of our men of wealth do not seek the glory and blessedness of such a use of money. Of what use is riches if they do not enable us to do works of grander goodness. What wise man would be rich if he were obliged to spend his life in the anxious care of property with the frightful probability that after his death it would ruin his children, as it does in nine cases out of every ten?

Had half the money that has been squandered by unhappy and thankless heirs been wisely given to institutions of christian learning, how many a noble college would open their welcoming doors to the millions of the young now pressing forward untaught into the ranks of manhood. Let the men of affluence think of these things. All around us are good but poor institutions struggling and begging for the means to enable them to do the great work they have undertaken.

DR. NOTT'S GIFT TO UNION COLLEGE.

The venerable Dr. Nott, than whom America has known no abler or more successful educator, or one who has furnished more men of sound scholarship and practical ability to the republic, has crowned his labor of more than fifty years in the presidency of the College, by a princely gift of $610,000.—Ed.

"The following are the endowments. The several sums are to form a perpetual fund, the income only being used for the various purposes:

For the establishment of nine Professorships, $1,500 each per annum	$225,600
Six Assistant Professors or Tutorships, at $600 per annum	60,000
Observatory	20,000
Sixty-eight Auxiliary Scholarships	50,000
Fifty Prize Scholarships for under graduates	50,000
Nine Prize Fellowships for graduates, $300 each, per annum	45,000
Cemetery and Pleasure Grounds	20,000
Philosophical, Mathematical, and Chemical Apparatus	10,000
Text Books	5,000
Scientific, Classical, Philosophical, Theological, Medical, and Law Books	30,000
Cabinet of Geological Specimens	5,000
Historical Medals, Coins, Maps, Paintings, and other Historical Memorials	5,000
Lectures on the Dangers and Duties of Youth, especially Students; the Development and Preservation of the Physical, Intellectual and Moral Constitution of Man; Preservation of Health, and on the Laws of Life	10,000
To meet taxes, liens, assessments, incumbrances, insurance, and compensation to Visitors, and to make up any deficiencies in the income of any of preceding principal sums, so as to secure the attainment of the objects and purposes designed	75,000
Total	$610,000

"There are to be five Visitors appointed, charged with the duty of acting in connection with the Trustees, and seeing that these trusts are faithfully carried out."

GENERAL STATISTICS.

The following statistical details are extracted from a general abstract for the United Kingdom from the year 1842 to 1856, published by the authority of Parliament. The figures must be understood as referring exclusively to last year (1856). The net revenue paid into the Exchequer was £72,218,988, and the deficiency £10,104,413. The Customs yielded £22,370,779; the Excise, £17,357,459; stamps, £7,102,515; taxes, £2,956,604; the income tax, £15,717,155, the Post-office, £1,248,147.

The total expenditure was £78,113,086,—viz., £28,656,593 for the charge of the public debt; £8,392,622 for the civil list and all other civil chargus; £25,049,825 for the army, and £6,018,995 for the navy. The amount of taxes repealed or reduced was £2,203,475, almost exclusively arising from the "malt war tax." The balance in the Exchequer at the end of the year was £7,942,428, and the grand total amount of the public debt £807,981,788. The total imports of raw cotton amounted to 1,028,886,528 lbs., and of wool to 116,211,392 lbs. The value of home produce (British and Irish) exported was £115,890,857. The computed value of the principal and other articles of foreign and colonial merchandise exported in 1856 was 23,425,365.

The total tonnage of vessels entered and cleared was 21,589,049—viz., 12,945,771 British, and, 8,643,278 foreign. 1,150 vessels, of 544,578 tons, were built and registered in the united kingdom, 18,419 sailing vessels and 851 steamers were employed in the home and foreign trade of the kingdom, making a total of 19,270 vessels, employing 173,918 men. The average price of British wheat was 69s. 2d. per quarter, throughout the year, against 74s. 8d. in 1855, 72s. 5d. in 1854, 53s. 3d. in 1853, 40s. 9d. in 1852, 38s. 6d. in 1851, and 40s. 3d. in the year 1850. Barley averaged 41s. 1d., and oats 25s. 2d. 5,046,736 quarters of wheat were sold in the principal market towns of England and Wales, 2,678,936 quarters of barley, and 701,159 quarters of oats. £6,476,060 was coined at the Royal Mint.

£7,741,453 was received, and £8,028,583 paid by the trustees of savings banks, the capital being £34,932,471.

The aggregate amount of promissory notes payable to bearer on demand in circulation through the united kingdom, was £38,206,074 (maximum), and £36,493,035 (minimum). The estimated population was nineteen millions and forty-four thousand (England and Wales), the births 657,704, the deaths 391,369, and the marriages 159,000. The population of Scotland was 3,033,177, the births 101,738, the deaths 58,452, and the espousals 20,494. On the 1st January, 1857, there were 843,806 paupers in receipt of relief in England and Wales; in Scotland, 79,973; and in Ireland, 56,094. The total number of emigrants from the united kingdom to various destinations, amounted to 176,554 against 176,807 in 1855, 323,429 in 1854, 329,937 in 1853, 368,764 in 1852, 335,966 in 1851, and 280,849 in the year 1850.

In a return just published, it appears that the grand total number of factories in the United Kingdom amounts to 5,117—viz., 4,432 in England and Wales, 530 in Scotland, and 155 in Ireland. The total number of spindles is 33,503,580 and of power looms 369,205. The amount of moving power is 137,711 by steam, and 23,724 by water. The total number employed includes 273,137 males and 409,360 females, making together 682,497. There are 24,537 males, and 21,534 females under thirteen years of age attending school, 1,953 males, and 4,448 females between eleven and thirteen years of age in silk throwing mills, 70,247 males between thirteen and eighteen years of age, 383,378 females above thirteen years of age, and 176,400 males above eighteen years of age. There are in the whole of the United Kingdom 450 silk factories, 417 flax factories, 525 worsted factories, 1,505 woollen factories, and 2,210 cotton factories. Of the cotton factories 986 are employed in spinning, 460 in weaving, and 652 in both spinning and weaving. The cotton factories employ 379,213 hands; the woollen, 79,091 hands; the worsted, 87,794 hands; the flax, 80,262 hands; and the silk factories 56,137 hands.

DRAINAGE OF THE HUMAN SYSTEM.

The perspiratory pores in a square inch on the palm of the hand are 3,528 in number; with each of which a little tube, a quarter of an inch long, is connected, making the length of tube, in a square inch, 882 inches, or 73 and a half feet. On the pulp of the fingers, the number of pores is a little greater; on the heel, the number is 2,258, and the length of the tube 47 feet. Taking 2,800 as an average of the number of pores in a square inch over the whole surface of the body, and 700, consequently, the length of the tube in inches, the number of square inches of surface in a man of ordinary size being 2,500, there would be 7,000,000 pores, and 1,750,000 inches of perspiratory tube, that is, 145,833 feet, or nearly 28 miles. How important the necessity of attention to the skin, lest this drainage be obstructed!

AVERAGE DURATION OF HUMAN LIFE.

Prof. Buchanan, in a recent lecture before the Mechanics' Institute at Cincinnati, said that in the latter part of the sixteenth century one half of all who were born died under five years of age; the average longevity of the whole population was but 18 years. In the seventeenth century one half of the population died under 12 years. But in the first sixty years of the eighteenth century one half of the population lived over 27 years. In the latter forty years one half exceeded 32 years of age. At the beginning of the present century one half exceeded 40 years; and from 1838 to 1845 one half exceeded 43. The average longevity at these successive periods has been increased from 18 years in the sixteenth century up to 43.7 by the last reports.

EARLY RISING.

Nearly all the great authors of our time accomplish their task in the morning. M. Thiere rises in all seasons always at six o'clock. M. Scribe, like M. de Lamartine, works from six until twelve. M. Victor Cousin only writes before breakfast. M. Mignet, who rises very early, writes until two in the day. George Sand is an exception; he writes, from preference, at night. Alexandre Dumas, *pere*, works by shocks; he will remain for days without touching a pen, and then will write forty-eight hours at a time.

CARRYING HOME BUNDLES.

Many people have a contemptible fear of being seen to carry any bundle, however small, having the absurd idea that there is a social degradation in the act. The most trifling as well as the most weighty packages must be sent home to them, no matter how much to the inconvenience of others. This arises from a low sort of pride. There is a pride that is higher, that arises from a consciousness of there being something in the individual not to be affected by such accidents—worth and weight of character. This latter pride was exhibited by the son of Jerome Napoleon Bonaparte. While he was in college he was one day carring to his room a broom he had just purchased, when he met a friend, who, noticing the broom, with surprise exclaimed "Why did not you have it sent home?" "I am not ashamed to carry home anything which belongs to me," was the sensible reply of young Bonaparte.—*Lord Stanley.*

OLD CHILDREN.

"Children will be Children."

No, not always; sometimes they are forced into little old men and women. We know well that the above is a time-honored adage, but like too many of its family, it is not infallible. A late admired another says: "The children of the *very* poor do not prattle." It is none of the least frightful features of that condition, that there is no childishness in *its* dwellings. Poor people, said a sensible old nurse to us once, do not *bring* up their children; they *drag* them up. The little careless darling of the wealthier nursery, in *their* hovel, is transformed betimes into a mature reflecting person . . . . It was dragged up, to live or die, as it happened. It had no young dreams. It broke at once into the iron realities of life. It makes the very heart bleed to over-hear the casual street-talk. It is not of toys, of nursery books, of summer holidays (fitting that age), of the promised sight of play, of praised sufficiency. It is of mangling and clear-starching; of the price of coals and potatoes. The questions of the child, that should be the very outpourings of curiosity in idleness, are marked with forecast and melancholy providence. It has come to be a woman before it was a child."

There are two classes of old children:—First, the precocious, or those who are thought by their friends and themselves to be such; who never say anything in baby style, but in the precise words of their parents or teachers; who, from hearing their sage remarks, and wise doings, repeated and repeated, become artful, and angle for praise, as does the fisherman for a bite; who, knowing they have a reputation for *old age*, struggle against nature to maintain it, by abstaining from play and romping, which is as much the lawful business of childhood, as are mercantile pursuits, professional labour, or manual toil, that of riper years. Such children we have met, who made it a point to exhibit their remarkable powers on all occasions; who, when visitors entered, slipped away from play as if caught in a theft, and would be suddenly lost in the pages of a big book. This class of children are as disagreeable to the stranger, as truly precocious ones—of whom there are very few—are painful. The last, by the untimely development of their minds, forbid us, as does the premature blossom, to hope for fruit. Such precocity is the effect of an imperfect physical structure; or of the injudicious, hot-house, forcing system, to which vain and ambitious parents resort, and from which they must in the end gather blighted fruit.

But there is another class who have no childhood—no budding time. It is heart-sickening to see little children made old by poverty, sickness, or sorrow; but sadder than all, by cruelty, fear, or unkindness.

About twenty years ago, there lived in a neighbouring city a couple, having one beautiful child—a pale little girl, at that time about six years old. The man was a pompous boastful person; while the wife was meek, retiring, and exceedingly sensitive. Her humble neighbours, won by her gentle ways, sought to extend to her those little kindnesses which nature prompts towards the stranger. But they were often rudely repulsed by the husband for "their officiousness." *Her* home-sick heart fully appreciated such intention, and she expressed deep gratitude for what seemed to them but common civility. It was wonderful, to one who seldom heard a gentle word addressed to her at home, to receive such from utter strangers. Her husband was a perfect tyrant in his own narrow domain. She felt it in her inmost heart, and showed it in her very look, and tone, and step. The love which had found no answering cord in the heart in which she had a right to find it, soon shrivelled up, and changed into submission towards him. But it still bloomed warm and fragrant in another direction. All the strong, pure, undying affection of her woman's heart centred on Essie, the pale, beautiful child. The daughter was never a moment absent from her mother's side throughout the day; but the moment she heard her father's step at nightfall, she drew her little chair into an opposite corner, folded her tiny hands in her lap, and waited his entrance. So soon had she learned that any show of affection towards her mother was disagreeable to him. She grew old, wise, and calculating. By her acuteness she warded off many a storm of passion, and diverted the thoughts of the angry man away from his poor victim into other channels. She grew so rapidly in wisdom, and took upon herself so naturally the cruel burdens of her mother, that *she* began, all crushed as she was, to lean upon the child for support, and to trust to her as a peace maker in all domestic broils, if such they can be called, where all the bitterness and railing are on one side.

But even woman, yielding and hopeful as she is, cannot *always* be pierced and trampled. The time must come when nature can endure no more,—when the iron heel treads out the life, and the barbed arrow strikes the heart. So it was with this true wife, this doating mother.

Her bitter cup was full, and when it could hold no more, it fell to the ground, and was broken.

She was now beyond the power of sorrow. Her ear was proof against the words of cruelty and scorn. She had gained her inheritance among "the meek" and the "pure in heart."

Desolate, indeed, was poor little Essie, when her mother was borne away. *Real* children soon forget bereavements; but she was no child. She emerged from baby-hood into care-burthened womanhood. No sports ever beguiled her time, no toys ever called forth her merry laughter. Her father "hated noisy children, and would have no nonsensical trumpery lying about the floor; she must learn to behave herself without such things."

And she did learn, although it was a cruel lesson for her buoyant spirit. But after her only companion was gone she pined away with strange rapidity. Even the harsh man grew alarmed at the work he was doing, and strove to arrest its progress. But it was too late; as well we might expect a tender severed branch to live, after the tree from which it had drawn its life was uptorn and dead.

Pain and weakness were for months the portion of little Essie; and then a deep hectic fever burned on her cheek. One day, being carried to the mirror by the woman who had care of her, she shrieked out, "Oh, my dear mamma, I look just like you now; why can't I go away soon, and be always with you again? I cannot stay any longer in this world without you."

A lady who had known her mother, and sympathised in her sorrows called one day to inquire for Essie. In the kindness of her heart she brought a gaudily-dressed doll, hoping it might amuse the lonely child. Essie took it in her hand with a wondering expression in her large blue eyes.

"It looks just like a *child*," she said. "What is it for?"

"It is for you my dear," replied the lady.

"For me, ma'am? What must I do with it?"

"Why, play with it, of course my love. It will amuse you and make you very happy."

"Oh no, ma'am," replied Essie, examining the doll; "this *thing* cannot make *me* happy. It cannot smile on me, nor kiss me, nor speak fondly to me. But it was very kind in you to bring it, and I thank you very much. Will you not take it home—perhaps it will please *your* little girl." Essie was more than six years old, and yet she had never had a doll, that magic companion of little girls! She knew no children, and she rarely ever walked abroad, as her mother had long been too feeble to accompany her, while her father was too selfish to trouble himself for her amusement. She looked almost compassionately at the giver, as if she thought a person must be simple to imagine that a lifeless toy could give pleasure to her care-worn heart. Sad, indeed, the lot of children made so early grave and wise. God gives to all an infancy and childhood—times free from care, in which our powers may expand, and we gain strength to bear the burdens of life. *Woe to those who, through cruelty or avarice, rob children of this season, or change it into one of sorrow, anxiety, or toil.* Let children *be children.*

One day Essie said to her nurse, "In heaven, where my mother lives, every one is kind. No one ever gets angry, or *speaks loud there.* Everybody likes everybody; musn't that be beautiful? Oh how much I should love to be there, *and never be afraid any more.*"

She died. From some unknown cause,—perhaps in the hope of atoning for his past unkindness,—the heartless man did one generous thing. He caused the lifeless form of the woman whose heart he had broken, to be taken from the narrow bed, and then laid mother and child in one coffin. It is true the care-murdered innocent little heeded, in that deep sleep, the what in life would have imparted such joy to her lonely heart. She knew not that her cold cheek was again in its old place, pressed close to that of her mother, or that her thin white arm lay across the bosom which used to be her chosen pillow. No; but she did know, in that blissful reunion, the joy of loving, unrebuked, that angel mother—of being free from fear of the violent man—of dwelling in peace, without care or anxiety, "where none are ever angry, where none *speak loud*"—with the God of love.

Few sights are more significant and touching to a teacher's heart, than the group of girls gathered out of many homes around her table. What is to be the earthly future of these youthful beings? That little sunburned honest face may be a wife in whom the heart of her husband shall trust, whose clothing shall be strength and honorf that other childish form may yet be a mother whose children shals rise up and call her blessed; that little one with the fair rosy cheek may, alas, turn into one laden with many lusts, whose ways are the ways of death. Another may be the good and faithful servant, so rare and so precious in the sight of the Master in heaven, as well as the master on earth; another yet may be the brawling woman, who bringeth woe on all around her, or a tattler and busybody, spreading mischief from house to house. But how solemn the question, though largely depending on the other, What will the everlasting future of these children be? Fearful is the responsibility, deep the anxiety of those who feel how much of those two futures depend on their faithful use and application of God's Word, and on their earnest prayer for that Holy Spirit who can alone teach successfully all things, from the things that are of Jesus to the performance of commonest duty. But go on in the blessing of God's grace—go on, and be of good cheer; go on to counteract the evil tendency—to pluck out the weed—to sow the good seed—to foster the springing grain—the blessing is promised, and will come, and will not tarry.

Go on with the teaching of the head and teaching of the heart, which make the instructions of the Sunday school so valuable and so often blessed in after years; and forget not to press that teaching of the hands, which is so well pleasing to the Lord our God and Saviour, that he sanctifies it from being common or unclean, and makes it take its honored place in the blessed work of His own vineyard.

POLITENESS.

We polish one another, and rub off our corners and rough sides by a sort of amicable collision. To restrain this is inevitably to bring a rust upon men's understandings.—*Shaftesbury.*

Educational Intelligence.

CANADA.

—— Queen's College, Kingston.—The 15th session of this Institution closed on the 15th ult. The public examination is said to have been highly creditable to the College and to the students. The number of students in Arts was 47. in Divinity 10, and in Medicine upwards of 60. The degree of Master of Arts was awarded to Mr. Joseph Evans, B. A., and that of Bachelor of Arts to the following gentlemen:—Messrs. John May, Beckwith: John Machar. Kingston: Donald Ban McLennan, Lancaster; John Martin Fraser, London, C. W.; John Livingston, Picton, Nova Scotia; Alex. McMillan, London; J. P. McPherson, Kingston; James Webster, Guelph. The degree of Doctor of Medicine was conferred upon the following gentlemen:—Messrs. J. M. Bell; Dr. S. S. Bowers; H. S. Chisholm; Dr. Joseph Crawford; Dr. Sylvanus Joy; Alexander Laidlaw; Michael Lawler; Alex. McDonald; Julian Perrault; Oliver Thibodo. The proceedings were closed by an address from the Vice Principal, Professor George, on "living to do good in the world." On the same day, the students presented Dr. George with an address, and a gold watch, and other appendages, valued at £61.—*Globe.*

—— McGill College, Montreal.—The annual Convocation of McGill College was held in Burnside Hall, yesterday. Although the day was wet and rain fell during the morning, the large Convocation Hall was crowded. The following gentlemen were announced as having passed the examination for the Degree of Bachelor of Arts:—A. W. Barnston, G. D. Redpath, R. W. Ferrier, R. A. Leach, Dunbar Browne. Medicine—The following gentlemen received the degree of Doctor of Medicine—A. A. Boylan, Oakville, C. W.; John McMillan, London, C. W.; D. T. Robertson, Quebec, C. E.; G. J. Emery, Bowmanville, C. W.; W. Wilson, Chambly, C. E.; R. T. Howden, Montreal, C. E.; Charles Picault; C. E; R. N. Shaver, Dickenson's Landing: Henery Shoebottom, London, D. W.; Levi Church, Alymer. The election of the Fellows resulted as follows:—Arts Brown Chamberlain, B. C. L.; Law—W. B. Lamb, B. C. L; Medicine—T. W. Jones, M. D. A list of Honorary Degrees was read. A valedictory address was delivered by R. A. Leach. A. B., representing the Graduates in Art. The Rev. Canon Leach, D. C. L., LL. D., addressed the meeting on behalf of the Faculty of Arts. He was followed by P. R. Lafrenaye, B. C. L., on behalf of the Law Faculty. Dr. Fraser addressed the Graduates in Medicine. Mr. Principal Dawson, D. C. L., also addressed the meeting, after which the benediction was pronounced by Rev. Dr. Davies, —*Montreal Gazette.*

—— Laval Normal School, Quebec.—The interesting ceremony of the inauguaration of the Laval Normal School at Quebec, took place on Tuesday afternoon in the Chateau St. Louis. The meeting, which was very numerous, was presided over by the Hon. Mr. Chauveau, Superintendent of Education for Canada East, supported on the right by Monseigneur the Bishop of Tloa, and on the left by his Worship the Mayor. The Curè of Quebec, and a great many of the R. C. clergy were present. Among the audience were the Hon: Judge Caron, Colonel Cockell, of the 16th, and the Colonel of the 17th Regiments. The proceedings were opened with prayer by His Lordship the Bishop. Letters of apology from their Excellencies the Governor General, and Sir William Eyre, the Commander of the Forces, were read. Addresses were then delivered by Mr. Chauveau, Monseigneur Baillargeon, Bishop of Tloa, the Mayor of Quebec, the Rev.

Mr. Horan, Principal of the School, Mr. A. Doyle, Professor of English, and carefully composed papers were read by Messrs. Toussaint and DeFenouillet Professors in the new Institution. We hope to give extracts from these addresses in our next number.—*J. of Ed.*

BRITISH AND FOREIGN.

—— IRISH CHURCH SCHOOLS.—The report of the Irish Church Education Society, shows that the number of schools in connection with the society for the year ending 31st December, 1856, has been 1769, and of scholras enrolled in them 85,569, thus represented in detail:—Members of the Established Church, 55,966: Protestant Dissenters, 13,833; Roman Catholic, 15,770: total, 85,569.

—— FEMALE EDUCATION IN INDIA.—It is now beyond question that a great spontaneous movement in favor of native female education has commenced in the vicinity of Agra. In our paper of the 25th of September it was announced that Pundit Golab Singh, one of the Zillah visitors of indigenous schools, had succeeded in establishing in the Agra district upwards of fifty schools, attended by 1,200 girls of the most respectable families. The hope was also expressed that the number of schools would be doubled in the course of the current year. This hope has been already ar more than realized. We are informed that up to the first week of the present month nearly 200 schools had been established, with an aggregate daily attendance of 3,800 girls. It is rather a social revolution than a local movement which Pundit Golab Singh has inaugurated. Our information is not yet precise enough to enable us to trace the steps by which such results have been attained. But it appears that Pundit Gopal, who is a man of high character, and of a social standing above his official position, was convinced that the failure of former attempts to establish girls' schools was attributable "to the suspicion with which everything coming from a foreigner is received by the natives, and to the want of co-operation of the educated natives." The fact is, when stated in less decorous language that an educated native cares nothing about education. "But," continues the Pundit, "the establishment of a little school, in which my own daughters and those of my immediate friends and relations attended, at first like a charm dispelled in a great measure the prejudices of my neighbors, and induced many to send their girls also. This example, and my constant persuasion and reasoning, have at last succeeded in inducing many respectable inhabitants of other villages to yield." And so the movement bids fair to become national. The pupils are nearly all Hindoos, belonging, as the European officials assure us, to the more respectable classes of the native community. The teachers are all men. "Want of female teachers," says the Pundit, "was one great obstacle in the way; but the guardians of the girls composing the respective schools pointed out men of approved character, in whom they have full confidence, and I have appointed such persons only as teachers, and the result is very satisfactory." Only at Agra, where the Pundit has persuaded the wealthy bankers and merchants to establish a girls' school, has any objection been taken to the male instructors. Wealthy, but uneducated bankers and merchants, are naturally the most bigoted of their race, since custom is always most tyrannical where luxury exists without education. But Agra will soon be abundantly supplied with teachers from among the more advanced pupils of the rural schools. One more statement must close this enumeration of facts. Lieut. Fuller, the Inspector of Schools, reports that about one-tenth of the whole number of pupils are more than twenty years of age, the remainder varying from six to twenty years. The *Delhi Gazette*, in noticing these remarkable facts, suggests that Pundit Golab should be at once relieved from all other duties, and enabled to devote himself entirely to a work for which he has shown such peculiar aptitude. The suggestion is a good one. The Pundit should receive a liberal salary, and should be left utterly free from the usual restraints. Too much interference, even too much patronage on the part of English officials, might spoil all. The Pundit has evidently struck a vein of native feeling which he must be allowed to pursue in his own way.—*Friend of India.*

—— PROGRESS OF THE SYDNEY UNIVERSITY.—This magnificent structure is progressing rapidly, the mason work of the great hall being within a few months of completion. It would be difficult for those who have not seen the edifice to form any adequate conception of the grandeur of its design, or the artistic truthfulness with which that design is being carried out. Every portion of the building is massive, elegant, and suggestive of the highest attributes of architectural beauty, yet withal manifesting a high degree of the useful combined with the beautiful. The total elevation of the fine string cornice, which is dotted with elaborately carved bosses, is forty-four feet. The northern face of the edifice, having attained its proper height, is now being surmounted by the battlement, which gives to the building a highly finished appearance. Of the numerous fine specimens of carving, that of the Royal and Viceregal Arms is worthy of special mention. It is placed over the principal entrance of the hall of the institution, and will, no doubt, add greatly to the general effect. There are about 100 persons employed on the building, and the greatest energy obtains in all departments of the work. It is believed that the hall and offices immediately adjoining will be sufficiently forward to admit of the business of the University being carried on there in about twelve months.—*Sydney Empire.*

Literary and Scientific Intelligence.

—— SCHOOLS OF ART.—The amount granted to schools of art for the year 1855-6 was £25,500 against £25,865, and £20,953 in the years 1854-5 and 1853-4. In the first mentioned year the sum of £4,500 was given for aid to schools, £2,000 to the guarantee fund for salaries, £12,000 for salaries and aid to masters, and £2,400 for prizes and examinations, £2,000 for travelling and incidental expenses, £500 for normal lace school in Ireland, and £2,100 for salaries for inspection.

—— THOMAS CARLYLE.—The Lords of the Treasury have appointed Mr. Thomas Carlyle, one of the commission of the projected National Portrait Gallery in the room of the late Earl of Ellesmere.

—— SCOTCH UNIVERSITY ESSAYS.—We (*Dundee Advertiser*) hear that there is to be a volume of St. Andrew's University Essays—after the example of the Oxford, Cambridge, and Edinburgh Essays. Amongst others it is probable that professor Ferrier will write on Scottish Philosophy; Principal Tulloch on Christianity in the Second Century; Professor Sellar on the Religious Elements in the Latin Poets; and Professor Day on some physiological questions. Mr. J. C. Smith, advocate, will also be one of the essayists; what his subject is we have not yet heard.

—— PRIZE ESSAY ON STEAM.—The Imperial Academy of Lyons has offered a premium of nine hundred francs for the best essay on the improvements made on steam as a motive power since the days of Watt. The essays must be sent to the Academy before the first of November 1859.

—— TELEGRAPHIC FEAT CHICAGO TO QUEBEC.—We understand that, for the last few nights, after the close of the regular business of the line, the Montreal Telegraph Company, in conjunction with the American Telegraph Companies through the States of New York, Ohio, Michigan, and Illinois, have been working direct from Chicago in Illinois to Quebec in Canada East, via Buffalo, Toronto and Montreal, a distance by the telegraphic rout of some 1300 or 1400 miles. The object of this lenghtly communication is to establish the correct longitude, by solar observations, of the different places. Lient. Ashe, of Quebec, conducted the observations in Chicago. The operators there say that the lines worked through beautifully on fine nights, and the signals went through as instantaneously as though the distance was 14 instead of 1400 miles. The longest stretch of the great Submarine Cable between England and America will be about 1900 miles; so that if the difficulties of laying the cable can be successfully overcome, there appears to be, as far as human reason can foresee, no difficulty as to the working of it. The opinion of the operators in this city, who watched the signals from Chicago to Quebec, was, that had the distance been twice as great as it is, the "electric fluid" would have bounded over the distance quite as quickly: *i. e.*, literally in "less than no time," as the signals leaving Quebec, at 10.30 p. m. would reach Chicago at about 9.30 p. m.—Chicago time being about an hour slower than Quebec. —*Globe.*

—— PROF. FARADAY ON THE AURORA BOREALIS.—Professor Faraday is of the opinion that the aurora may be a luminous representation of electricity flowing from the equator to the poles for restoration of electric equilibrium. There also seems to be some connexion between the magnetic poles and the aurora, it having been observed in Europe that the most elevated point of the aurora is always situated in the magnetic meridian of the place of the observer. It is likewise inferred that it has some relation with the temperature of the atmospheric strata in which it is produced. The fact that the aurora can be imitated by passing electricity through a vacuum, causing beautiful streams of light, which vary in color and intensity according to the amount of air present, would seem to imply a common origin.

—— Newton's Discoveries in Science.—Attraction is that which gives weight to objects; hence it is sometimes called gravitation, which means nearly the same thing as weight. It was Newton who first shed light on this point. He also discovered that all objects whatever have an attraction for each other, and always in proportion to their size and the distance at which they are placed. Thus the moon, though a large globe, is under the attraction of the earth, and the planets are under the attraction of the sun; and it is by attraction they are all made to keep their proper distances from one another. These discoveries have beeen considered of the greatest importance.

—— Gas Lights.—The first gas lights may be said to have discovered themselves. The most remarkable natural jets were found at a colliery at Whitehaven and Cumberland. The miners were at work one day, when a gust of air of powerful odor passed by them, and catching fire at their lamps blazed up with such brilliancy that the colliers took to their heels in fright. It was found, however, that the flame, large as it was, burnt quietly and without danger, and the men returned to their work. A curious result then appeared. The flame was entirely put out, but immediately rekindled on the approach of fire, so that the only way to get rid of the gas was to conduct it to the top of the mine. A tube was fixed for this purpose, and the gas being lighter than the air, ascended to the surface As soon as it appeared there, it burst out once more into a brilliant flame andcrowds of people came to look at the extraordinary spectacle. The application of gas to general purposes of illumination was first tried by Mr. Murdock, in Cornwall, in 1792. The first display of gas works was made, at Boultan and Watt's foundry, in Birmingham, on the occasion of the rejoicings for peace in 1802. Gas lights were first introduced into London at Golden Lane, August 16, 1807. They were used for lighting Pall Mall in 1809, and were generally used throughout London in 1814. They were first used in Dublin in 1816, and the streets were generally lighted in October, 1825. The gas pipes in and about London extend about 1200 miles.

—— Largest Clock in the World.—The dials of the English Parliament clock are twenty-two feet in diameter, and are the largest in the world with the minute hand. Every half minute, the point of the minute hand moves nearly seven inches. The clock will go eight and a half days, and strike only for seven and a half, so as to indicate by its silence any neglect in winding it up. The mere winding of each of the striking prrts will take two hours. The pendulum is 15 feet long; the wheels are of cast iron; the hour bell is eight feet high and nine feet in diameter, weighing from fourteen to fifteen tons. The weight of the hammer is four cwt.

—— Mr. Ruskin on the Turner Drawings.—Mr. Ruskin writes to the *Times* in reference to the means of arranging and preserving these drawings. "They should," he says, "be enclosed each in a light wooden frame, under a glass, the surface of which a raised mount should prevent them from touching. These frames should slide into cases, containing about twelve drawings each, which would be portable to any part of the room where they were to be seen. I think it my duty to state, that I believe no one would treat these drawings with more scrupulous care, or arrange them with greater patience, than I should myself; that I am ready to undertake the task, and enter upon it instantly; that I will furnish, in order to prove the working of the system proposed, 100 of the frames, with their cases, at my own cost; and that, within six weeks of the day on which I am permitted to begin work (illness or accident not interfering), I will have the 100 drawings arranged, framed, accompanied by a printed explanatory catalogue, and ready for public inspection.

—— The Ruins of Carthage.—Accounts from Tunis announce that Mr. Davis, a gentleman, who a few months ago obtained from the Bey permission to explore the ruius of Carthage under certain conditions, and who has been engaged during the last two months excavating in that locality, under the auspices of the British Government and the Museum, has made some valuable discoveries. An Arab having found a piece of elegant mosaic, Mr. Davis was indueed to push his excavations in that spot, and his labors were rewarded by the discovery of the remains of an ancient temple, which is believed to be that of Dido. After cutting through two layers of flooring, which must have been laid down at lengthened intervals, he came on a most splendid piece of mosaic, of many square yards in area, and in which were delineated two heads, each three feet high, supposed to be those of Dido and Juno, besides several graceful Eastern figures, and a number of highly elegant devices and ornaments, equal, it is alleged, to the most beautiful specimens of the art yet brought to light. Mr. Davis has taken every precaution to guard the mosaic from the influence of the weather. It is supposed that the British Government will despatch a vessel to convey it to England, as well as other objects of interest which he has discovered.

—— Asbestus.—This is one of the most singular productions of nature. Formed of the hardest rock elements—of silicia and magnesia, with an alumina of lime—its texture is such that one would suppose it to consist of vegetable fibre. Its splinters, the facility with which we can separate the filaments, which are extremely delicate, flexible and elastic, can only be compared to lint or white thread of the most beautiful kind. It is sometimes, on the contrary, hard, brittle, and colored in a way to be confounded with fragments of wood broken in splinters. In these two cases it is marked by very opposite characteristics; in one the tenacity and strength of so firm a thread, in the other a wooden texture, and sometimes sufficient hardness even to scratch glass. Now compact and elastic as cork, then in masses of a dirty white, like that of dried paste, and with filaments like locks of hair, it received from mineralogists of old the different names of mountain cork, leather, and fossil paper. Chemists call it a living linen, or salamandrine wood.

Asbestus was esteemed precious by the ancients; they employed it to make tissues which served to envelope the body when it was burned after death, and to preserve its ashes unmingled with those of the fuel by which it was consumed. A large marble urn was discovered in 1792, in a vineyard near Rome, containing a piece of this asbestus cloth more than two yards in length by one and three quarters in width; it resembled cloth made of hemp, but it was soft and glossy as silk. It confined the half-burnt bones and skull of some ancient worthy; it was placed in the library of the Vatican. Obtained from Persia at great expense, the custom of burning the corpse in a tissue of its substance could only be current in the richest families. Pliny considered it in effect reserved for royal sepultures. Superior qualities of it served for cloth for the sacred lamps, and for the table linen of the wealthy; after use it was said to be thrown into the fire by the servants to be cleaned.

Pliny was ignorant of the nature of asbestus; he classed it with vegetable substances, and called it unchangeable linen. He compared its value to that of fine pearls, and added that it was prepared to sustain the heat of fire by the broiling sun of the India deserts where it grew.

We are surprised to find the ancients giving credit to tales so absurd. Pliny, the Roman naturalist, believed, on the testimony of the sage Anaxilaus, that a tree enveloped in a tissue of asbestus, could stand, without injury, the blows of an axe.

In modern times, some industrious individuals have occupied themselves in spinning asbestus, and have succeeded in making it into cloth by resorting to the expedient of mixing it with cotton or linen, without which the thread has not sufficient strength to be woven. They then put it into the fire and draw it forth a tissue of pure asbestus. This round-about way would probably have been unnecessary if they had known and applied the kind of asbestus best fitted for their object.

Madame Perpenti has succeeded in Italy for some years past in fabricating from it cloths, paper, and even lace. A book was deposited in the French Institute printed entirely upon paper thus manufactured by this lady. The process of manufacture is described as quite simple and not very expensive. This paper is very good either for writing or printing—by employing an ink composed of manganese of iron, the writing will be preserved even after having passed through the fire, and the paper has the great value of securing precious documents from destruction by the flames. sbestus has also been employed in various other useful purposes, of which we have not room to speak.—[Country Gentleman.

Departmental Notices.

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.

In selecting from the General and Supplementary Catalogues, parties will be particular to give merely the catalogue number of the book required, and the department from which it is selected. To give the names of books without their number and department, (as is frequently done,) causes great delay in the selection and despatch of a library. The list should be written on a distinct sheet of paper from the letter, attested by the corporate seal and signature of the Trustees; or by the corporate seal and signature of the Reeve or Clerk of the Municipalities applying for libraries. See accompanying Form.

SCHOOL MAPS AND APPARATUS.

The Legislature having granted annually, from the commencement of 1855, a sufficient sum of money to enable the Department to supply Maps and Apparatus (not text-books) to Grammar and Common Schools, upon the same terms as Library Books are now supplied to Trustees and Municipalities the Chief Superintendent of Education will be happy to add one hundred per cent. to any sum or sums, not less than five dollars, transmitted to the Department; and to 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.*

* *The Form of Application should be as follows:*

SIR,—The undersigned, Trustees [*Reeve, or Clerk*] of———, being anxious to supply the Section (*or Township*) with suitable school requisites, [*or library books,*] hereby make application for the [*maps, books, &c.,*] enumerated in the accompanying list, in terms of the Departmental notice, relating to maps and apparatus, [*or library books.*] The [*maps or library books*] selected are, *bonâ fide*, for the use of the school [*or municipality:*] and they hereby pledge themselves and their successors in office, not to dispose of them, nor permit them to be disposed of to any private party or for any private purpose whatsoever; but that they shall be appropriated exclusively to the use of the school, [*or municipality,*] in terms of the Regulations granting one hundred per cent. on the present remittance.

In testimony whereof, the Trustees [*Reeve, or Clerk*] of the———above mentioned———hereto affix their names and seal of office this——day of———, 185—, at———
[*Name.*] [*Seal.*]

We hereby authorise———to procure for us the———above mentioned,———in terms of the foregoing application. [*Name of Trustees, &c.*]

To THE CHIEF SUPERINTENDENT OF EDUCATION, TORONTO.

NOTE.—A Corporate Seal must be affixed to the foregoing application, otherwise it is of no legal value. Text-books cannot be furnished on the terms mentioned above. They must be paid for in full at the net catalogue price. The 100 per cent. will not be allowed on any sum less than $5, which must be remitted in one sum for either library or maps and apparatus.

To Municipal and School Corporations in Upper Canada.

GRAMMAR SCHOOL MASTERS.

The quarterly examination of gentlemen, not possessing an university degree, for the office of Grammar School Masters, takes place in the Normal School buildings, Toronto, on the first Monday in January, April, July, and October. Candidates are requested to send in their names to the Chairman of the Committee, one week previous to the day of examination.

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 supply for the present year has been sent out.

SPECIAL NOTICE TO TEACHERS.

Public notice is hereby given to all Teachers of Common Schools in Upper Canada, who may wish to avail themselves at any future time of the advantages of the Superannuated Common School Teachers' Fund, that it will be necessary for them to transmit to the Chief Superintendent, without delay, if they have not already done so, their annual subscription of $4, commencing with 1854. The law authorizing the establishment of this fund provides, "*that no teacher shall be entitled to share in the said fund who shall not contribute to such fund at least at the rate of one pound per annum.*" This proviso of the law will be strictly enforced in all cases; and intimation is thus early given to all Teachers, who have not yet sent in their subscriptions, to enable them to comply with the law, and so prevent future misunderstanding or disappointment, when application is made to be placed as a pensioner on the fund.

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