



"Promote, then, as an object of primary importance, institutions for the general diffusion of knowledge."

VOL. I. 29.072 LAFAYETTE COLLEGE, EASTON, PA., APRIL 2, 1838. No. 1.

THE EDUCATOR. Der Erzieher.

UNDER these titles respectively, the subscribers propose to publish, in alternate weeks, two papers, one in English, the other in German, to be devoted to education in the modern liberal sense of that term; viz. in that sense in which we practise the business of education in this institution. To *Educate* is to *draw out* into actual and profitable use all the powers of the man; physical, intellectual, and moral; and by their development to increase, extend, and perfect them. We hold that every power and faculty of body and of mind, was bestowed upon man for use; and not for inactivity or abuse; and that there is no successful method of enlarging and strengthening them, but by their legitimate exercise. Every person knows that if a child's arm be long bound up, and remain at rest, it becomes enfeebled; but if it be kept in vigorous exercise it acquires strength. So the mind. Let its faculties be exercised—cultivate the memory, the judgment, and they acquire strength by their own activity. So the heart. Let the benevolent affections flow forth in kindly actions; let conscience be enlightened and active in prompting to duty; their power is promoted. Let them be unemployed; or let the vicious affections be indulged, these increase and those are enfeebled.

Now this process of drawing out and training the powers of body, mind, and heart to habits of systematic, upright, and profitable action can be carried on only by the application of suitable instruments. Accordingly we have on Mount Lafayette, Gardening, Farming, and Mechanical labours, for the body; we have Languages, Ancient and Modern, History, Geography, Mathematics, &c. for the mind; and all accompanied with moral training for the heart.

Such is our idea of education, and to such education the proposed periodicals are to be devoted; but mainly to the interests of Common Schools. We hope to make our papers interesting and profitable, by original essays, and by free extracts from other periodicals on Education and Agriculture. There are from fifteen to twenty education journals published in Germany, the best of which, should the public encourage us, we shall have, to enrich the pages of our German paper, and to translate into English. So also, as occasion may offer, we expect to translate for our German pages the best articles we can find in the English journals, both on Education, Agriculture, and Horticulture.

For these labours, the last two of the subscribers, on whom principally they will devolve, feel themselves in some degree qualified; one having been educated in Edinburgh, and having been familiar, from infancy, with the Scottish Parochial School System; and having acquired a

knowledge of the German and French languages, and through them, and by personal observation on the ground, having become somewhat familiar with the Prussian, Swiss, and French systems of education, which are modifications of the Scottish. The other having been brought up in Germany, and been familiar with the great and important educational improvements in the fatherland of Luther and Melancthon. But whatsoever be our qualifications, we have given ourselves up to the cause of Education, and, believing that the last hope of the world's freedom is staked on the efficacy and success of the Common Schools of America, we freely pledge our best exertions to render the proposed publications worthy of such a cause and the confidence of that public, who are destined to bear the lights of Science, Christianity, and Freedom, in triumph round the Globe.

THE TERMS.

1. This paper is issued every second week (alternating with a German paper, containing the same matter nearly, and on the same terms,) making 26 numbers in the year, or volume, or 208 pages, including a title page, and an alphabetical index.
2. The price is *One Dollar* per year or volume, paid in advance. If not paid before the issuing of the tenth number, \$1 25 will be required.
3. A failure to notify a discontinuance before the close of the year or volume, is an engagement for the succeeding year. No paper will be discontinued until the arrears are settled, except at our own discretion.
4. Any person who shall transmit, free of cost to us, five dollars at one time, shall receive six copies in one envelope, and to one address.
5. All communications must be post paid: on all letters containing money to the amount of \$5, and upwards, except as in term 4th, we will pay the postage.
6. Notices and advertisements, relative to Education only, will be inserted, and charged at the rate of three cents per line (capitals counting two,) for the first insertion; and one cent per line for each additional one.

GEO. JUNKIN,
President of Lafayette College.
ROBERT CUNNINGHAM,
Professor of Ancient Languages.
FREDERICK SCHMIDT,
Professor of Modern Languages.

ON EDUCATION.

In our prospectus we hinted briefly at the enlarged sense in which we use the term *education*. We propose now to expand those hints a little, as an introduction and further explanation of our general plan.

The title, which we place at the head of our columns, is intended to convey a general notion of the labours to which we feel ourselves called; and consequently of the matter which the public are to expect from us. The word *Educator* is but recently introduced into English society, and indeed into being; for it is not strictly a Latin term. It bears, however, the same relation to *educate* and *education*, that *legislator* and *emancipator* do to legislate and emancipate—legislation

and emancipation; and though not in universal use, yet it is used by the best writers on education in our country, and bids fair to become a very respectable English word. We have chosen it, for the same reasons, no doubt, which actuated the editors and correspondents of the *American Annals of Education*, viz. because there is no one word in the English language which so nearly expresses the idea we wish to express: and we proceed at once to use the word to aid us in expressing the idea.

To *educate* signifies, literally, to *draw out*—to *lead out*; and implies something within—something concealed, covered over and not to be immediately accessible for present use; but which, by a little careful management and a right use of means, may be led forth from its retirement, and thus become available. Thus the decaying vegetable matter which lies lifeless in the soil, by proper means may be drawn up into the roots and branches of a seedling tree, and finally become apples, pears and peaches; or into the stalks and heads of wheat, and so become bread. Thus, by educating the plants of his field, the farmer feeds the world. The steps of his process are immensely various, but they are all connected with the one grand design, viz. the *drawing out* of the earth what lies hid in it. Now it is obvious that he works entirely by the agencies of nature. He cannot make a blade of grass grow on a grain of wheat. It is the Creator's power, operating according to the laws which he has established in his world. And the farmer *leads out* the plants and the trees which feed the race of men, just by using skilfully the agencies of nature. His whole skill lies in just giving his tree or his wheat *food* and *protection*—every opportunity, and no hindrance in the way of their expanding their powers. He cannot force them.

Thus also with his domestic animals: all he can do to *draw out* their powers and properties is just to afford them protection—defence against themselves, against one another, against the inclemencies of time and season; and food suited to their innate powers and capacities, and that in proper measure and season. For an animal, like a plant, may be injured by excessive or untimely food and drink. If it be the strength of the ox or the horse that is desired, this quality can be *drawn out* most efficiently by a careful observance of the laws of his nature. He must be gradually trained to its exertion, and the less violence he suffers, the more strength will he expend in his master's service.

So also is it with the powers of man. Infant human beings are the germs whose development is the business of the educator. Feeble plants, indeed! needing above all others, and for a longer period, the hand of protection and of sustenance! But it is with these as it is, generally, in the vegetable kingdom: plants and trees of rapid growth are short-lived. The Lombardy Poplar soon outstrips the Cedar, but its age is as

nothing compared with it. Animals too are somewhat analogous. And in our own nature the animal frame of rapid growth is not generally robust.

In contemplating infant humanity as the subject of this process of *drawing out*, three classes of powers seem to comprehend the whole nature, viz. the *animal or physical*; the *rational or intellectual*; and the *religious or moral*. To us it appears that under one or other of these may be arranged all the powers, properties, or faculties of our nature, the *leading out* and perfecting of which is the high and noble object of Education. Let us glance at these in their order.

PHYSICAL EDUCATION first claims our attention. Because, for a long period of time,—a period equal to that in which most animals come to full maturity,—man is to us, an animal only. He is thrown upon our care absolutely helpless; and our first concern is to protect him and to apply such means as are adapted to put into action the powers he possesses. Warmth and food are his chief wants. These administered in due proportion, and in proper season, will keep his feeble powers in action, and by their action they increase their own strength. The importance of paying strict attention to the bodies of infants, youth and men, it is not difficult to see. True, the body is of small moment in comparison with the mind; but it is equally obvious that it is to us the vestibule of the soul—the door of entrance to the rational mind. Our success in preserving the body in life and health, is indispensable to our introduction to the mind. We can operate upon this only through that, and the existence and healthful action of the one is indispensable to the growth and expansion, *under our influence*, of the other.

Here then opens out before the educator, an almost interminable field; and one too, of a very inciting character. Even in this lowest department of his labours, where he has to do with matter and its modifications, he occupies high ground. For the matter with which he is conversant is organized, and that in the highest degree known to us—so organized as to come into immediate union with spirit. Of all material subjects, the human body, mysteriously connected with an immortal mind, and destined to be connected in an endless duration, is surely the most interesting and the most important. We consider then education as including the entire business of protecting, nourishing, training and governing the body for the perfecting of its powers. Of course the more accurate knowledge the educator has of it, the more likely is he to succeed in his efforts. And we hope to see the day when mothers, to whom the business of education must first of all be entrusted, will themselves be instructed in the general principles of anatomy and physiology; that understanding the nature of the trust committed to them they may be prepared the better to discharge its duties. And we hope to enrich our own columns occasionally with articles original and selected on all the various topics that relate to the healing art, and especially the art of preventing injuries to the human frame. *A sound body will always have in it a sound mind.*

Under this department also is to be ranked the whole subject of the animal passions, appetites and desires. Every thing therefore that adds to their proper restraint and direction—every thing that goes to explain their connexion with the body on the one hand and the mind on the other, falls within our province here.

But **INTELLECTUAL DEVELOPMENT** is the chief

part of education—rather, it has so been viewed by mankind. And we are ready to admit that in comparison with the preceding it is chief. Nor is the general principle different here. The powers of the mind are to be awakened, as it were, like the powers of the body, by the application of suitable instruments. Food is an instrument for awaking and strengthening the powers of body; knowledge is the food of the mind, by which its slumbering powers are awaked to energetic action, and by which its *dead powers*, to use a contradictory phrase, become living energies. And the resemblance holds to a very beautiful extent between them. Give strong meat to children and you injure their health; give abstruse and difficult knowledge to a feeble mind, and you overwhelm it; it becomes feeble and sickly. But let the items of knowledge be always adapted to the capacity of the learner; still a little beyond his last attainment; just so far as to induce effort, and not to produce discouragement; thus you carry him onward in the endless race.

Now there is one thing we wish to be distinctly understood between us and our patrons in this matter. It is this; knowledge is not the ultimate object in education. It is a means to an end yet beyond it. The end which we shall still hold up as that at which the educator aims, is the perfecting of the human being. The efforts of mind which we make in the attainment of knowledge, strengthen it and produce habits of systematic and persevering action; and this increase of the power of the mind is the chief gain. It is not the youth who has acquired at school the most knowledge, perhaps, who has received the most benefit. He may have acquired it as the tub at the pump-spout acquires water; what has been pumped in may soon be pumped out again. But the youth who has been taught to exercise his own powers in the acquisition of knowledge; who has wrought it out for himself, with only the direction of his teacher; this youth, though he may have a smaller amount of knowledge than the other, yet has an inexhaustible supply. His is not a tub, but a spring, flowing up from its deep and exhaustless source. This man has made his capital and his ability to use it; the other has fallen upon his by some gambling turn which threw the product of other men's labours into his hands. The one will wear and the other will wear out. We will never advocate hydraulic force pumps to create stagnant pools of knowledge, whose possessor knows not how to use. Rather let us remove the tall grass in the ravine on the mountain side, and the turf and the leaves, and open up and lead forth the purling stream, whose limpid waters sparkle as they pitch down the precipice and hasten on to swell the waiting brook below.

One other remark on intellectual education. It is interminable—absolutely interminable. That is, the enlargement of the intellectual powers, by their own legitimate exercise, continues through life. It does not stop when a boy leaves the school; that is, if he has been rightly trained: if he has been educated at all. If indeed he be a tub, pumped full, of course he can hold no more. But if his powers have been awakened; if he be a spring from the deep mines of knowledge, then he will continue to flow on for ever. Through life he is still improving; and after the body shall have ceased to be the vehicle of thought, no doubt the mind will continue to expand in knowledge and perfection for ever.

This suggests our third general branch, Mo-

RAI EDUCATION; and the first remark we have here is, that the two preceding will prove a curse or a blessing; an injury or a benefit to the individual or society, just as this last is successfully attended to or not. Every man must see that great physical powers and great intellectual vigour, if not under the wholesome restraints and government of sound moral principles, must do great mischief. The more power a wicked man has, the more dangerous is he. A man who cannot engrave, is unable to produce counterfeit bank notes; and a man who cannot write at all cannot sign them. Better far for the forger and for society, that he had never learned to write, or even to read. Morality is to education what the compass and helm are to the steam ship. The hugeness of her mass, and the might of her motive power, are the measure of her capacity for working ruin, if that might and mass are ungovernable. But put man's physical strength and his intellectual force under the proper command of a *moral helm*, and neither can ever become too great for safety.

Another remark it is well here to throw out. We do not place moral education third because of its inferiority, nor because of its entire subsequence in order of time; but because the others must precede it in part. Physical education necessarily begins first; then intellectual, then moral; but they run together from a very early age. They are to a large extent mutually dependent, for every teacher knows how much more successful his labours are with a youth whose moral principle, like the fly wheel of a powerful engine, regulates his movements. Sole attention to physical education may produce mammoth strength, but it is mere brute mass. Sole attention to intellectual education may produce monster fiends, with immense heads and no heart. Sole attention to moral education is impossible; for the examination of moral truths calls for the exercise of intellectual power; and therefore this department includes both the others.

Again, morality, as distinct from religion, we do not know. Believing ourselves, that there is no boundary marked out by the Creator between them, we shall not attempt to force nature in violation of her own laws. With Washington, we would ask, "Can it be, that Providence has not connected the permanent felicity of a nation with its virtue?" "And let us with caution indulge the supposition, that morality can be maintained without religion." This moral training begins almost in the cradle, and ends—we were just about to say, at the grave; but no. It never ends. We must think the moral faculties, like the intellectual, capable of interminable expansion.

Now, for the development of the moral powers, the moral government of the family, the school, the state, or the church, are chiefly instrumental. And being Christians, we suppose the sum of all the great principles of moral government is contained in the sacred Scriptures. The general truths, therefore, of the Bible are highly important and indispensable to the highest success of education. No system that excludes the fear and reverence which the immortal mind owes its Maker can be fully available for the development of its more elevated moral attributes. But whilst we consider the successful educator as under imperious obligations to use the Christian Scriptures as an indispensable auxiliary, yet, being ourselves of different sects, we are perfectly clear, that the narrow spirit which sees excellence only within the precincts of sect,

is utterly unworthy of the broad foundations on which popular education should rest. The educator then, will occupy only general ground in the department of morals. It stands committed to the common Christianity and the morality of the Bible, and will treat of these only so far as may be necessary to the public virtue, and to show, as Washington says, that "reason and experience both forbid us to expect that natural morality can prevail in exclusion of religious principle."

THE EDUCATOR.

EASTON, PA., APRIL 2, 1838.

A SPECIAL PROPOSITION.

This first number is sent to several persons, who have not subscribed; a liberty which we take, because we believe you well disposed toward the object, and willing to support it, at least to the extent of a year's subscription. We hope we are not mistaken in this belief, and that you will not suffer the smallness of the enterprise, to sink it beneath your notice. A tiny mouse cut the cords of the net, and set the lion at liberty; may not our little paper be instrumental in cutting the cords of ignorance and letting loose the lion intellect of a great people? Will you not allow us to enroll your name among the earliest patrons of the first paper published in Pennsylvania, devoted to Education? If you are willing to become a subscriber, we ask you to signify it by keeping this number. If you are not willing to become a subscriber, we ask of you the favour, to send it back to us by mail. Should it not be returned to us by the first of May, let it be understood, that you allow us to enroll you as a subscriber.

THE NEXT NUMBER.

No. 2, will not be issued for some weeks, because we wish to know somewhere near the amount of our circulation. As the work is not designed for present use only, but for binding up with a title page and alphabetical index, so as to be prominently useful as a book of reference, both for parents and teachers, for farmers and mechanics, we wish to commence with such a number as will not call upon us to reprint more than one back number, in order to accommodate new subscribers. We therefore print a large edition of this number, and wait until we can form a prudent estimate as to the probable amount of subscribers. Can it be possible, that the people of Pennsylvania alone—and we are glad to know already, that "the Educator" will not be confined to our state—but can it be, that Pennsylvania alone, will not call for two thousand copies, provided the paper shall be well conducted? There cannot be much short of two hundred thousand political papers taken in the commonwealth,—we mean there are that number of subscriptions to such papers; ought not a very small and cheap paper on education, to receive a tithe of that encouragement?

THE NECESSITY OF AID FROM THE PRESS.

Is it reasonable to expect the cause of Education to go forward, without the aid of that mighty engine, the press? Is it unreasonable to call in such aid? What great cause prospers without it? Politics, Commerce, Religion,

Missions, Agriculture, Law, Medicine, Internal Improvements, Anti-slavery, Colonization,—every thing of consequence, has its periodical; why not Education? Is not the want of a distinct vehicle of information, one of the precise reasons of our extreme difficulties in organizing a good system for our schools? What an unreasonable thing it is, to expect, that the committee of a legislature, composed of men almost, or altogether unacquainted with plans of teaching, and principle and practice in governing a school, should sit down in the midst of the bustle and confusion of a state capitol, and concoct a perfect, or even a tolerably good system and law for primary schools? How much correspondence and research were necessary before we could make even a beginning in legislation? Now, if we had previously brought the power of the press to bear, for a few years, upon the subject; and had procured a vast collection of materials, in such an arranged system as is here proposed, such committee would have had all the important facts before them at once, and could have proceeded much more intelligently and satisfactorily. Should the Educator be suitably patronised, in two or three years, not only the school teachers and professors in colleges; but even the parents and guardians, will have at command, the collected wisdom and experience of the profession, from all parts of Europe, and our own country. The plans pursued in either states and nations; the successes or failures of these plans; the improvements that have been, or may hereafter be made upon them; the effects of them, in enlightening the people and securing rational liberty, by promoting intelligence; the general elevation of society; its increased security and happiness—all such matters will be before the mind, and in possession, so that, upon any one point, he that desires it may cast his eye upon it at once, by simply glancing at the index of his Educator.

Thus, there must be excited in the family, a new feeling of interest in the school; and, consequently, the teacher's efforts will be seconded at home; without which, indeed, it is not possible his success should be great.

Another mode by which a powerful influence for good must be expected. The Educator will be a bond of union between teachers all over the country. It will prove a cheap means of communication between teachers throughout the states; and afford an easy way of acquiring a knowledge of places vacant, and of men to fill them. There is, probably, wisdom and experience enough in the state, to constitute a very perfect system of education: but it is scattered all abroad. Every teacher has a little, and perhaps, every one has an item or two of knowledge, that might be useful, which no other has; but there is no means of collecting these together, so as to render each available to all. The consequence is, that no one has sufficient for great efficiency; whereas, if there was a common vehicle of intelligence, each throwing in his mite to the common stock, the whole amount would be large, all would gain by the operation, and no man would lose even what he himself had contributed. The next generation will look back with amazement upon the apathy of the present, in this matter: and will ask in wonder, how was it possible, that the most important interest of the republic, was the last to call in the aid of the Press?

THE SUPERINTENDENT'S REPORT.

After our matter was made up for this number, we were favoured by a friend at head-quarters, with a copy of Mr. Burrowes's Report on Common Schools, Academies, and Colleges: and have not now time to give it that attention which its importance deserves. It is a well written and copious document, covering 64 pages, and exhibits evidence of great and laborious research, and a very considerable degree of tact. In some of the details in reference to schools, it is probable we may differ from him, but are not prepared to speak decidedly now. As to the temporary expedient towards furnishing school teachers, as well as to the permanent means of supply, we feel also constrained to dissent. Situated as Pennsylvania is, with ten chartered colleges, eight of which are in successful operation, we are of opinion, that these institutions can easily be made abundantly sufficient and powerfully efficient, in the great work of furnishing good teachers for the schools, and in sufficient numbers. Our views are briefly exposed in Professor Cunningham's inaugural address, and were also briefly set forth in President Junkin's address in the Representatives' Hall, on the 15th of February last: and, we have understood, will be embodied in a report from the committee on Education in the Senate. We, therefore, forbear an exhibition of them here, farther than simply to state, that a model school attached to each college, a teachers' course of studies along with the college classes in the scientific, and English branches; with practical lessons on teaching in the model schools, is the substance of it: and aid, to a limited extent, for young men preparing to teach, that obscure talent may be elicited and kept in the public service. We differ from the Report in a few things, and shall hereafter show our reasons more fully. But, at the same time, we admire the expanded liberality that breathes through the report, and feel greatly encouraged to hope brighter days for Pennsylvania, than she has ever yet seen. "As much money," says the SUPERINTENDENT, "as would annually construct half a mile of railroad, given each year to the colleges, and the cost of only one mile of canal to the academies, will place both on a foundation of permanent security and usefulness. Will Pennsylvania rather increase her wealth, than educate her sons? She has shown, in her munificence to the common school system, that she will not."

We close for the present our brief notice of this interesting document, by a quotation from the closing page. "The undersigned cannot close this report, without bearing testimony to one fact, alike honourable to the state and advantageous to the system. In his whole experience, the blighting touch of party politics has never been detected upon it. All seem to forget their every day differences, and to meet unitedly on this, as on a sabbath ground of devotion to the public good." Oh, if it could be always thus!

Report of the State Treasurer, in relation to Colleges and Academies. Read in the House of Representatives of Pennsylvania, January 18, 1838.

TREASURY OFFICE, January 18, 1838.

DEAR SIR.—I herewith enclose you a report, exhibiting the several amounts of money paid to Colleges and Academies, with the dates of the appropriation, in accord-

ance with a resolution of the House of Representatives of Pennsylvania, of the thirteenth of January, 1838.

DANIEL STURGEON,
State Treasurer.

Hon. LEWIS DEWART,
Speaker of the House of Representatives.

COLLEGES AND ACADEMIES.

In obedience to a resolution of the House of Representatives, passed the thirteenth day of January, 1838, calling for information, as follows:

"Resolved, That the State Treasurer be requested to report, as soon as practicable to this house, what amount of money has been appropriated to the different Colleges and Academies, within this Commonwealth, in the shape of endowments or otherwise."

The State Treasurer respectfully submits the following report:

COLLEGES.

DICKINSON COLLEGE.			
Per act of	1786,		\$1,333 33
do.	1791,		4,000 00
do.	1795,		5,000 00
do.	1803,		6,000 00
do.	1806,		2,400 00
do.	February 28, 1821,		16,000 00
do.	13, 1826,		21,000 00
			\$55,733 33

JEFFERSON COLLEGE.			
Per act of	1806,		\$3,000 00
do.	1821,		5,000 00
do.	March 11, 1826,		4,000 00
do.	February 28, 1832,		8,000 00
			\$20,000 00

WASHINGTON COLLEGE.			
Per act of	1797,		\$3,000 00
do.	1821,		5,000 00
do.	March 11, 1826,		4,000 00
do.	April 4, 1831,		2,500 00
do.	March 11, 1834,		5,500 00
			\$20,000 00

ALLEGHENY COLLEGE.			
Per act of	1817,		\$2,000 00
do.	1821,		5,000 00
do.	April 14, 1827,		4,000 00
do.	" 5, 1834,		8,000 00
			\$19,000 00

MADISON COLLEGE.			
Per act of February 27, 1828,			\$5,000 00

LAFAYETTE COLLEGE.			
Per act of March 11, 1834,			\$12,000 00

PENNSYLVANIA COLLEGE AT GETTYSBURG.			
Per act of February 6, 1834,			\$15,000 00

MARSHALL COLLEGE.			
Per act of March 29, 1837,			\$12,000 00

ACADEMIES.			
Public School of Germantown,			\$2,000 00
Pittsburg Academy			5,000 00
Washington "			3,000 00
Reading "			5,000 00
Bucks county "			4,000 00
York county "			2,000 00
Chambersburg "			2,000 00
Meadville "			1,000 00
Norristown "			2,000 00
Bellefonte "			2,000 00
Easton, Union "			2,000 00
Greensburg "			600 00
Canonsburg "			1,000 00
Wilkesbarre "			2,000 00
Doylestown Union "			800 00
Uniontown "			2,000 00
Northumberland "			2,000 00
Harrisburg "			2,500 00
Greensburg "			2,000 00
Somerset "			2,000 00
Gettysburg "			2,000 00
Bedford "			2,000 00
Greene "			2,000 00
Butler "			2,000 00
Chester county "			2,000 00
Mercer "			2,000 00
Williamsport "			2,009 00
Yenango "			2,000 00
Delaware "			1,000 00

Beach Woods Academy,		2,000 00
Bustleton "		500 00
Athens "		2,000 00
Orwigsburg "		2,000 00
Allentown "		2,000 00
Indiana "		2,000 00
Lewistown "		2,000 00
Lebanon "		2,000 00
Huntingdon "		2,000 00
Susquehanna "		2,000 00
West Chester "		3,500 00
Erie "		2,000 00
Wellsborough "		2,000 00
Ebensburg "		2,000 00
Kittanning "		2,000 00
Clearfield "		2,000 00
Milford "		2,000 00
Mifflinsburgh "		2,000 00
Lancaster county "		3,000 00
Smethport "		2,000 00
Warren "		2,000 00
		\$104,900 00

Whole amount appropriated to Colleges, \$168,733 33
do. Academies, 104,900 00

\$263,633 33

Lands appropriated to Colleges and Academies.

	Acres.	Perches.
Franklin College,	10,000	
Washington College,	5,000	
Pittsburg Academy,	5,000	
Academy of the Episcopal Church, Philadelphia,	10,000	
Reading Academy,	5,448	81
Charity School of the German Lutheran Congregation, Philadelphia,	5,000	
Charity School of the German Reformed Congregation, Philadelphia,	5,000	
Beaver Academy,	500	
Waterford "	500	
Erie "	500	
	46,948	81

We docket the above report for reference hereafter, and as an occasion of a remark or two now.

It will be seen to differ materially from the table G. of Mr. Burrowes's report last year, on "the common schools, academies, and colleges."

The chief discrepancy is easily accounted for. Mr. Burrowes includes in his report, the universities, which Dr. Sturgeon omits, as not included in the resolution under which he acted. Now,

the University of Pennsylvania, in Philadelphia, is set down in the Superintendent's report, at \$69,666, and the Western University at Pittsburg, at \$12,000. Dickinson is set at \$3,733 33, and Washington, at \$3,000 less; and Pennsylvania, at \$3,000 more than in the above. We

have not at hand the means of stating which is correct; or whether both were correct at their dates respectively. It might be proper to state,

that the amount given to the University of Pennsylvania was not, strictly speaking, given in money. If we mistake not, it was the estimate

of certain lots given by the proprietary government, to the old Philadelphia academy, and confirmed by legislative grant to the university,

at its creation. Adding, then, the appropriation to the Western University, to the amount reported by the treasurer, we will have \$170,733

33 as the sum total of money granted to colleges by the state; and, if the superintendent is cor-

rect in setting down \$4,000, as given to Northumberland county academy,—the treasurer's makes it \$2,000—this added to the treasurer's reported amount, will make \$106,900 given to academies; and a total of \$277,633 33 appropriated in money, to colleges and academies, since the landing of Penn.

Now look at the facts. Since the origin of our government, we have spent a little over a quarter of a million in furnishing the means of education:—in ten years we have spent twenty-eight millions in furnishing the means of becoming wealthy—in internal improvement! More than one hundred times as much money expended, in ten years, in *educating* the earth we read on; as in a hundred and fifty years, in *educating* the people who furnish the money and own the land!! Most amazing fact!!!

Now, we cast no reflection; but on the contrary, commend the liberal and enterprising policy of the mighty expenditure; and we admit, there is wisdom in a young state, as in a young family, first attending to the procurement of indispensable necessities: first food and clothing to secure life; then instruction to secure its enjoyment. Nay, but we mean to be understood as censuring the long delay in the cause of intellectual development. The bad policy of it, even in a moneyed point of view, we hope to point out hereafter. The heavy tax the State has paid for the support of the entire system of criminal jurisprudence—for foreign cultivated talent in the shape of school-masters, of patent agents, of doctors, of lawyers, and judges, of preachers, of engineers and contractors—if carefully investigated, will show that our neglect has cost us more, ten-fold, than would have raised up native talent for our highest services. Allow us at present, only to advert to

THE ECONOMY OF GOOD TEACHERS.

Every farmer knows that good ploughing has a very material advantage over bad ploughing, in the matter of securing a crop of wheat; and, consequently, that it is not wise policy to hire a poor ploughman, simply, because he will work for a dollar less per month, than a good one. His deficiency, which would hardly be noticed by any eye, but that of a good farmer, might very possibly make more than a dollar per acre of difference in the value of the crop. So, cheap blacksmithing—cheap horse-shoeing, may and often does, prove dear in the end.

A man who is unfortunate enough, to be obliged to contend in law for the right to his land or other property, makes a poor bargain when he goes to a drivelling petifogger in the law, *because*, he can obtain his services for a smaller fee than those of a sound lawyer. And how much has a man gained or saved, who has

been steamed to death, because the steam doctor works cheap?

But there is no end to illustrations. We might fill our whole paper with good ones, all tending to show, that, as "*what is worth doing at all, is worth doing well,*" so what is worth paying for at all, is worth paying for well: and what is well worth paying for, is the cheapest in the long run. Who goes to a shop where nothing but apprentices work?

Now, we ask, is this principle sound and true in every thing but education? Is it very certain, that the *lowest priced* goods are always the *cheapest*?—the lowest priced school-master is always the cheapest?

Look at the facts. Suppose your object is simply to put your boy in possession of a certain amount of knowledge—say reading, writing, arithmetic, and geography—regardless of his mental training. You simply want that much pumped into him. Well, here is a man who will teach for \$12 per month and found. He has not learned by any systematic training himself, but has taken up an idea here, and another there. And as for that deep knowledge of human nature and the laws of mind, he has not begun to think about such things. But he can read, &c., a little, and, as Paddy said, "It would be a poor business, if he could't *larn* as fast as the bairns," he thinks no doubt he can squeeze as much water out of a flint to-night, as he can pump into his boys to-morrow. So, because he works cheap, you employ him: and he keeps your boy sitting on a board six hours per day for six months. At which time, the boy has acquired half as much as if he had been under the care of a skilful teacher. But he has acquired even this without system; and without understanding the reason of what he has learned; and without the formation of a single good habit of thought; and, worst of all, with a thorough disgust at all schools, and dislike to all school-masters.

But now, here is another man—not a whit superior in natural strength of mind, and moral worth; but he has had regular training himself, and his mind is formed to habits of systematic exertion; and he has acquired a good knowledge of human nature, and the principles and springs of human actions. He is willing to work for \$25 per month and found. At the end of six months, your boy has acquired double what he did before, as to amount; but he has acquired a habit of self-command; and of systematic effort; and a love for his teacher and his school and his studies. Can you calculate the profit and loss in these two accounts, and strike the balance? or is it not incalculably great in the latter case, above the former?

Thus would we impress upon the minds of our

readers their deep interest, even in a pecuniary point of view, in having men to teach their children, who are well worth paying, and of paying them well. How such men are to be created, must be inquired into in subsequent numbers.

From the Annals of Education.

THE MASSACHUSETTS SCHOOLS.

We find, from the Massachusetts School Returns for 1837, that the average length of the public schools in this state, during the previous year, was only six months and twenty-five days, leaving, of course, average vacations in the schools, of five months and five days.

In the state of New York, the average number of months in which schools were kept during the year 1836, was something more than eight. In Connecticut, probably about seven and a half months. Even in Ohio it was five months and three days.

This comparison does not seem very favourable to Massachusetts. If we exclude Boston and Nantucket, however, it is still worse. The average there is only six months and eleven days. In Worcester, an old county, where the children ought to go to school the year round, the average is only five months and two days; something less than the average of the whole state of Ohio. In Dukes county it is still worse—only four months and fourteen days.

The average wages paid to female teachers in Massachusetts, during the period aforesaid, was \$11 38, including board. We suppose the average price of board throughout the state, could not have been less than \$2 00 a week, leaving \$3 38 a month, or only 84 cents a week for services. In Boston, the average wages of females, including board, was \$15 78. This, deducting \$3 00 a week for board—and we ought not to deduct less—leaves \$3 78 a month, or 94 cents a week. In Essex county, and in several other counties, female wages were lower than the average for the whole state. In Hampden county female wages were only \$9 12. The average wages of male teachers (except in Boston, where they receive \$67 25) is only \$25 44; which, allowing \$2 50 a week for board, leaves only \$15 44 as compensation per month, for services. This, however, is four or five times as much as is left to female teachers. In Boston, the average savings by the male teachers, allowing \$4 00 a week for board, would be \$51 25—more than 13½ times as much as the savings of the female teachers.

Here are three things at least which are not as they should be. 1. Massachusetts should have her 200,000 youth in school, at least an average of ten months in the year, instead of less than seven. 2. She should be ashamed to pay her male teachers an average of only about \$15 00 a month, besides board, for their exhausting labours; and her female teachers less than \$4 00 a month. 3. Boston, boasting of her liberality, and of the excellence of her schools, and paying her male teachers, besides the ordinary price of board, more than \$50 00 a month, should not turn off female teachers with an average of less than one-thirteenth of that sum!

THE TRAINING SYSTEM.

The following is part of a paper furnished to Prof. Cunningham, by a friend in Scotland. Many of the positions taken, may serve as useful hints to teachers with us. The remarks set forth at the

beginning, come to us in good time, just as we are becoming a manufacturing people. They tell us to be on the alert, to prevent the demoralizing influences of a dense manufacturing population, by due attention to training.

Outlines of the Training System pursued in the Model Schools of the Glasgow Normal Seminary.

The primary object in forming and working out the Training System, as a system of public education, was to provide an antidote to the demoralizing influence of large towns and manufacturing villages, for which the parochial system made no provision, as its founders did not contemplate such a state of society.

It is the all-important question in civic and moral economy—Why is it that education has made so slight an impression on the moral habits of society? Has education hitherto been in reality any thing more than a teaching of the head? Has it been a training of the affections and habits? Could public crime, or vicious habits, by any possibility, exist, as they now do in society, had moral training formed a distinct feature in public education?

Many improvements have of late years been introduced in education; these, however, have referred almost exclusively to the cultivation of the intellectual powers. No provision has been made for moral training—for restraining the evil propensities, and cultivating the moral habits of the young.

Sabbath Schools have done much for the Christian instruction of the young during the last thirty years; but the moral teaching of one day in seven is not an antidote to the exposed condition or positive *immoral training* of the other six days of the week.

Educationalists have almost entirely overlooked that most powerful and efficient principle of our nature, for good or for evil, *SYMPATHY*—mental, but particularly moral sympathy.

Our large towns and factories are a new state of society, and are now the sources and centres of our nation's power, morally and politically, yet no new moral machine has been adapted to that altered condition. Keeping these objects steadily in view, this system of education, for children of two to fourteen years of age, is presented to public attention, as applicable not merely to the head of the child, but to the *whole man*—the moral being—a training up of "the child in the way he should go," in his habits of thinking, feeling, and acting.

The training of a well-regulated family is made the standard of the system, with an additional power which no single family possesses, viz. *sympathy of numbers* of the same age, and having the same pursuits. In the family, the boy at twelve years of age sympathises little with his sister at ten, and still less with his brother at seven or eight; with his own companions, however, of the same age, he has the most perfect sympathy.

Example is more powerful than precept; but sympathy is more powerful than either, or both combined. And when example, precept, and sympathy combine, as in boys of the same age, an influence is in operation, compared with which the example and precept of parents and guardians are rendered comparatively powerless.

In the Training School, infant or juvenile, chil-

dren, when from under the eye of parents engaged in various occupations during the day, are kept from the evil companionship of the streets, and not merely taught, but trained in a moral atmosphere. At present, however, from want of moral training in school and at play, children return from school to the bosom of a family less moral than when they left it in the morning.

The ordinary school-room is not a platform sufficient for the important purposes of the *real* education or training of the child. There is under our system a **PLAY-GROUND**, closely attached to the School-house, in which the children, freely at play, are exercised and trained under the eye and superintendence of the Schoolmaster. If the Master is not there, in that case the play-ground may be a place for mischief, rather than for moral training. A Janitor or Assistant cannot supply the place of the Master; and while a play-ground is necessary for the development and training of the moral character and habits of the child, a **GALLERY** is also necessary for his intellectual development and training.

Infant training, being, of necessity, the most natural and simple, is, therefore, made the basis of all the arrangements in the more advanced departments. The habits thus early formed facilitate every future acquirement; whereas, even at five or six years of age, bad habits already formed must be rooted out or subdued ere good ones can be established.

Although the Training School was originally intended as a new machine for the moral elevation of large towns, in actual practice it has been found equally successful and efficient in country districts, and has received the unqualified approbation of clergymen and directors wherever established.

The nearer school training can be formed on the model of family training, in the moral department at least, the better, and therefore we prefer that, in the Infant School, there should uniformly be both a male and female teacher, representing the father and mother; and, as in the family, so in the school, boys and girls ought to be trained together. There may be some slight risk where they are simply taught, but none whatever where they are trained; and on this account we would act upon the same principle in the Juvenile School, up to the age of twelve. Wherever boys are trained alone, or girls are trained alone, the moral training must be imperfect. Each improves the other sex by the generousities and kindnesses mutually manifested in the school-room and in the play-ground, a line of moral conduct one would wish to see continued through life. In the same play-ground, boys will generally sympathise and play with boys, and girls with girls; still the moral effect of the liberty of being at play together, and saying lessons together, is both striking and important.

The Infant Training School is for children of two to six years of age, and the Juvenile Training School for those of the age of six to fourteen. The advanced scholars above ten or eleven years of age, during a portion of the day, are again classified in the Commercial and Female Schools of Industry. There is but one system of training for the child from the age of two to fourteen years. The children are under the moral superintendence of the Master or Mistress within the premises, from the opening of the School at nine o'clock morning, to four o'clock p. m. when it is closed. One hour of interval is allowed at mid-day for those who choose to go home; but most of the

children bring dinner, and remain at play within the premises.

The Training system is divided into four heads—physical, intellectual, religious, and moral; and these, although separate to a certain extent, are yet combined.

PHYSICAL TRAINING.

Under this head may be included—healthful exercise in the play-ground—cleanliness and neatness of person—habits of order in school and at play—also proper modes of walking, sitting, and running—holding a book or slate—distinct articulation in reading or speaking. To these may be added those physical exercises necessary to keep up the children's attention during their lessons, such as clapping of hands, stretching out arms, simultaneous rising up and sitting down of the whole scholars, and any other proper bodily motion that gives vent to the natural gaiety and exuberant spirits of youth. Under the old system, or in a teaching school, these natural ebullitions are restrained, and generally coerced into silence, breaking out, however, or exploding, at the first favourable opportunity; but, in the Training School, these inextinguishable accompaniments of good health are freely permitted, at short intervals; and, instead of proving sources of disquiet or disturbance, they are directed by the Trainer, and rendered powerful instruments of moral discipline. The superabundant *steam being let off*, the children under the guidance of the Master naturally and most willingly submit to remain still during the period usually assigned to a lesson. In the Infant department, and with the younger children of the Juvenile School, however, some slight physical exercises must be given, even during the progress of the shortest lesson, without which the eye and the attention can rarely be kept fixed. Vocal music is practised at intervals during the school exercises, suited to the particular lesson, and marching airs accompany every movement to and from the gallery and the play-ground.

INTELLECTUAL TRAINING.

Although the term Intellectual Training is usually applied exclusively to the cultivation of the understanding in secular subjects, yet it is as applicable to the religious department, as to the one more immediately under consideration. The religion of the Bible must be impressed on the understanding, as well as on the affections, else it cannot be the religion of an intelligent being. Under our system, therefore, the principle of cultivating the understanding is one and the same in secular and sacred subjects.

In addition to those branches usually taught in the Parochial and best Elementary Schools, one new lesson is given each day from the Book of Nature, and one from the Book of Revelation.

The exercises throughout are conducted by *question and ellipsis mixed*, not by lecture or explanation, or mere question and answer.*

Little is *told* the children. Facts, of course,

*EXAMPLE OF ELLIPSIS.

(The small dots mark the ellipses.)

MASTER—A question requires a direct

CHILDREN—*answer*.

M.—An ellipsis is the

C.—*filling up*

M.—of a word or

C.—*words*

M.—left out by the

C.—*Master*.

must be stated; but the mental exercise and training are conducted chiefly by *analogy and illustration*, keeping in view the important principle, that **TEACHING IS NOT TRAINING**, and that the former is included in the latter. The children *answer a question, or fill in an ellipsis, during every sentence of the exercise*.

The **FIRST** division in every exercise is to cause the children to draw a *picture of the whole subject*. **SECONDLY**, a *pictorial analysis*. And, **THIRDLY**, the *lessons naturally deducible*, which the children uniformly are able themselves to give, provided the Master or Trainer has drawn out a correct picture, and properly analysed it. There is, therefore, *first*, the picture; *secondly*, the analysis; and, *lastly*, the lesson. A common error is to give the lesson before the premises are laid.

Simplicity of communication being the highest and last attainment of a teacher, the fitness of the Normal students to become efficient trainers is tested in the infant, in preference to the more advanced, department.

PESTALOZZI introduced the use of Objects in popular education. WILDERSPIN added to these Pictures of Objects. The **TRAINING SYSTEM**, to the use of both, has added the *picturing out of every term and every subject, in words representing objects*; for it must be borne in mind, that every word in the English language either represents an object, a combination of objects, or may be pictured out in words representing objects.

It was the adoption and practical working out of this last idea, first in our private Sabbath School, afterwards ingrafted on the Model Infant School in 1831-2, that enabled this natural, simple, and efficient system, to be also ingrafted on a Juvenile Parochial School, since designated the Model Juvenile Training School; and the experience of six years proves it to be equally applicable to every branch of education. These two Model Schools, Infant and Juvenile, with their accompanying class-rooms and play-grounds, have since that period formed the practical basis of the Glasgow Normal Seminary for training schoolmasters.

Monitors are in use in the ordinary school exercises, but to a considerable extent are superseded by the *direct simultaneous training of the children in the gallery* by the Master; and although above one-third of the time between nine and four o'clock each day may be spent at play or physical exercises in the training-ground, no diminution in the amount of instruction is sustained, for the Trainer is enabled to save fully more than this period by the use of the gallery.

In every division of the elementary course, such as Grammar, Etymology, Arithmetic, &c., the practical exercise precedes the learning of rules, and the understanding of every subject goes before the committal of the mere words to memory.

Books are not used in the Infant Training School, although quite common in Infant Teaching Schools, or what may be termed the *cramming system*. The introduction of books tends uniformly to subvert the moral training, and sometimes even the physical and the intellectual training, and must be injurious to the health of young children.

Too many books are used in Juvenile Schools generally, and *by far too many and too long lessons given to the children to learn at home*. Books must be used, and lessons to a certain extent

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TERRACULTURAL.

TERRACULTURE.

We venture at the outset to introduce a new term, and that for the only justifiable reason, viz. because there is no single word heretofore in use in our language expressive of the idea we wish to express. *Agriculture* is the culture of the *field*, and includes the operations of farming or the tillage of large portions of land. *Horticulture* is the culture of the *garden*, and has reference to the production of kitchen vegetables, fruits and flowers. We have often felt at a loss for a word to include all these, and as *Terraculture*, or the culture of the *earth*, exactly expresses the idea, and as it is derived from the Latin in a manner exactly similar to the other terms, we think there must result a decided advantage from its introduction. It comprehends all things which are produced from the earth, by the labour of man and beast, through the agency of vegetable life. Every thing that germinates and grows by receiving its nourishment from the soil, belongs to this department.

The utility of Terraculture will appear at once, if you consider, for a moment, that from this lowest kind of life, which it is its business to produce and extend, are deduced the elements of life to all others. Animals live upon vegetables, either directly or indirectly—directly when the plants of the field and the seeds of the plants are eaten by the animals—or indirectly, when one animal devours another which has fed upon vegetable life and its products. Thus “the king himself is served from the field.” And this will hold even in reference to the monsters of the deep. The smaller fishes of the sea derive their nourishment from the shoals that are carried out from the land, whence they have derived their sustenance. The waters that rush into the sea teem with life and the means of sustaining it. Millions of millions of the small fry swarm in all our rivulets, creeks and rivers, and are borne on in due time toward the ocean, where they are received into the more capacious mouths of the larger fishes; and again, by human ingenuity, are taken for the use of man. So that it may truly be said, the earth produces the means of life to all that live.

Beauty also abounds here. The most enchanting scenes in nature are those which this primitive art has aided to perfect. We can scarcely dwell upon the subject of beauty without being transported on the wings of fancy into some spot where the wildness of nature has been checked, and her powers directed by the skilful hand of the horticulturist. Nor can we think of delicious food without the same reference. By the labour of his hands was innocent man to procure the means of his own subsistence.

The dignity and respectability of Terraculture will be duly appreciated then only when there shall be an elevation of the minds of those employed in it. If education never carries the lights of science into the field, the garden, the orchard, of course, the occupations of husbandry and gardening, will be looked down upon as low and degrading. But, we ask, why should it be so? Why should the farmer be as ignorant as the horse he drives? Why should he know nothing of the nature of the soil he turns up, and of the principles on which his art is founded, than what he may gather by his own unaided observation? Why should this primitive art alone, be entirely divorced from the science on which it is founded? For this there

can be no just reason. And we think the true reason why Terraculture has received so little of respectability from the influence of science, is to be sought in the history of feudal tenures in Europe, and the consequent oppression of those who laboured on the soil. Certainly there is no reason for it in the nature of the occupation.

The truth is, no human pursuit affords so many and so strong inducements, to high intellectual culture. And we hope to show hereafter, by an inquiry into facts, that in this country, a very large proportion of the most respectable and efficient talents in the land has been borrowed from the cultivators of the soil.

Terraculture, as a science, ought to enlist the best efforts of genius; and indeed, in various ages has done so: yet by no means to the extent of its rightful claims. To it belongs the science of *Mineralogy*, for the soil we cultivate is a collection of mineral substances, in various degrees of decomposition and in various proportions mixed together. Can any man give a good reason why he who turns it up and searches there for those hidden treasures which feed the world of living things, should not understand its formation? Would his knowledge of its composition disqualify him for his business?

But the soil is a great laboratory, or chemical apparatus, whose use is to dissolve and *cook*, as it were, the food for the plants that grow in it, and to brace them up in a proper position, whilst they are employed in eating their food and increasing thereby. *Chemistry* therefore, is a handmaid to Terraculture. Why should not the farmer and gardener know the science of his art?

Botany is the very science of this art. The knowledge of plants, in their constructions, their powers of germination, their various classifications, their qualities, whether poisonous, or otherwise—all these have a most intimate connexion with the interests of Terraculture—the food-producing art.

Zoology, or the science of animal life, lies also within the field of the cultivator's art: for the arts of destruction of some, and of promoting the life and growth of other animals, constitute very important items to the farmer and gardener. How important, for example, to the former, is it to know the habits of life which belong to the weasel, the Hessian-fly and the grub-worm? How important to the latter to know how and when, and where, the worm breeds that destroys his peach, his plumb, his pear trees, &c. &c.

In these various departments, it shall be our business to collect, from such sources as lie open to us, the results of scientific research and of practical experience. And we trust that we shall furnish such matter as will abundantly repay our subscribers for their cost of the paper.

THE SUGAR BEET.

FOOD FOR COWS.

From the small experiment we made in this way last season, we are perfectly satisfied that the farmer who will give it a fair trial, will not soon abandon the cultivation. Sugar out of the question, milk, butter and beef will very well compensate for his labour. Our ground was poor, except one small strip that had been spaded the season before, and cultivated in celery and cabbage, and very much afflicted with weeds. Consequently the expense of labour in hoeing was unreasonably great, and therefore the question of profit could

must be committed, but the master is the best book. The human voice and action, and the *mental sympathy of the gallery*, under the training system, simplify education, impress the knowledge more lastingly on the mind, and save much of the drudgery to the pupil, although the labour of the master as a trainer is consequently increased, at least for the first few months.

MORAL TRAINING.

Moral Training is of course practical throughout, and comprehends the restraining of all the evil propensities of our nature, and, on the contrary, a cultivation of all that is noble and virtuous, founded on the principles of the immutable standard of revealed truth, and stimulated by its high sanctions and motives.

We must here notice a fundamental error in education, which is the confounding of two things essentially different. Moral instruction and moral training are generally imagined to mean the same thing; whereas the former is merely the imparting of knowledge, while the latter is the cultivation of the practical habit. On this clear and practical distinction hangs one chief peculiarity of our system.

Habits are so important a part of education, and so influential on individuals as well as nations, that we may almost be said to be the children of habits. Proceeding, then, on this idea, how important must early training be before *habits* are formed, and when we have only evil *propensities* to contend with!!

A few of the evil propensities and habits may be mentioned, which it is the duty of the trainer to restrain and suppress as they are developed; whether mental, in the school gallery, or practical, in the school play-ground;* viz., rudeness, selfishness, deceit, indecency, disorder, evil speaking, cruelty, want of courtesy, anger, revenge, injustice, impatience, and dishonesty, so fearfully general in society.

On the contrary, all the amiable feelings and Christian virtues must be cultivated, such as—speaking truth, obedience to parents and all in lawful authority, honesty, doing justice, forbearance, generosity, gentleness, kindness, fidelity to promises, courteousness, habits of attention, docility, disinterestedness, kindness to inferior animals, pity for the lame and the distressed and the weak in intellect, and in general of doing to others as we would wish to be done by.

Such evil propensities must be subdued, and moral habits formed, not by teaching, but by training. We cannot lecture a child into good manners.

This department requires a *play-ground* for development and moral sympathy, as the intellectual department does a gallery for mental sympathy.

Nor is there any dread here of too much being done. An over-working of the intellect is, indeed, frequently fatal to health; but the fullest exercise of the moral powers only improves the health.

* The requisite apparatus and arrangements, with the various modes of training, will be best *theoretically* understood by consulting “The Training System—a Manual for Infant and Juvenile Schools, and as pursued in the Glasgow Normal Seminary;” M’Phun, Glasgow; Cotes, London;—in conjunction with one or two weeks’ observation of a Training School.

not fairly be stated from the whole plot. It however furnishes the data from which a plain calculation can easily be made. A single experiment will lead us this season to cultivate as follows:

1. Plough not less than twelve inches deep—fifteen if we can—as early as the ground will allow.

2. Harrow and cross plough, *deep also*, on the middle of May—harrow and strike out in furrows six inches deep and twenty inches apart.

3. Spread a good streak of well rotted dung in the bottom of the furrows.

4. Back up a light furrow from each side upon the dung, as if covering potatoes.

5. Run a rake along the top to flatten and sweep off clods. Then drill in the beet seed liberally, so as to ensure in the final thinning, one good plant in every foot.

6. They must be cleared of weeds once, probably twice, with the hand hoe, and then with a light shovel plough run between the rows as frequently as the weeds threaten to be injurious.

Now every farmer can guess—though he was not born in the land of Yankees and pumpkin pies—about how much work an acre thus cultivated will require. But I hear you ask—Can you tell me how much it will yield? That might be difficult; as you will suppose, when we assert there is probably not one farmer in ten that could guess within ten wagon loads of the product of this acre. Let me give you the data and the calculation too. Your strip of ground is 160 perches, that is 2640 feet long; and 16 1-2 feet wide, which, at 20 inches, lacks just two inches of giving you ten rows—say then ten rows of beets, and 2640 in a row—that is 26400 beets. Now if you knew the weight of each, you might cypher out the entire product in pounds. Well, if your ground is good and your seed good, and you manage it as above described, your beets will average ten pounds (we have had them over eleven); that is, you will have 264,000 lbs of sweet food off one acre; that is 117 tons, 17 cwt. and 16 lbs. gross.

But we are not done yet. Sixty pounds of these beets per day, washed clean and chopped up with a clean spade, and an armful of coarse hay, or salted straw, will make your cow milk nearly as well as if she was up to the eyes in clover, and become fat in the mean time. That is, the product of an acre would keep a cow 4400 days, or 18 cows for eight months. Now if it would cost you as much manure and labour to cultivate this acre, as to cultivate five acres of corn—which it certainly will not after the first year—would you not gain vastly by the enterprise? But the beet does well on the same ground, without change at all.

We would advise to plant a part on the middle of May, 1st of June, and about the 15th or 28th. For it is yet to be ascertained what is the best time. Be sure you leave but a single root in a foot—if three or four or even two are left close together, as beets always come up, the beet will be spongy and ill shaped, which is a great loss, because of the dirt adhering when they are taken up. We have not said any thing of the tops as a feed for cows in the fall, before the roots are taken up. They are of considerable value.

Now there are several *ifs* in the foregoing—look well to them, or if you don't, and your experiment falls off one half, don't blame me; and if you realize one half, thank the *Educator*.

You can get the beet seed of Mr. Geo. C. Thorburn, No. 11 John street, New York; or of Mr. Landreth, Chestnut street, below Fourth, Philadel-

phia: ten pounds carefully used, will plant an acre—cost?—I don't know now—perhaps five dollars.

From the Farmer and News Letter.

RUTA BAGA, FOR HORSES.

Mr. Cole—Noticing in one of your papers a recommendation of Ruta Baga, in small quantities, as good food for horses, I have this winter tried the experiment much to my satisfaction. I have two working horses which I have fed on coarse fodder together with a peck of ruta baga each per day. My horses were never in better health and flesh since I have kept horses, which has been for about thirty years. My neighbours frequently ask how much grain I give them, and they appear much surprised when I tell them—not a kernel.

W.

Westbrook, Me. Jan. 23, 1838.

REMARKS BY THE EDITOR.

We have just noticed one of the above horses, and he is in so fine order it is no wonder that W.'s neighbours are surprised that he is kept so well without grain; and we are surprised to learn that the coarse fodder on which these horses are kept, is nothing but rye stubble and weeds, mowed after the crop of grain was harvested. Here, brother farmers, is an important lesson for you—a very cheap method of keeping horses in fine order so that they will skim you over the ground with the velocity of old Scrapewell's mare. This fact, together with the abundant yield and cheap method of raising ruta baga, is worth thousands of dollars to the community. We have before recommended to farmers to raise roots for their stock instead of grain; they are usually worth as much as the grain that can be raised on six or ten times the quantity of ground, and they will keep stock in a better condition than grain. In this way the same amount of food, and better food, can be obtained, and yet the most of the land usually devoted to raising grain for stock can be put to other useful purposes.

REMARKS BY THE EDITOR OF THE EDUCATOR.

It was the agreeable lot of one of us to ride from New York, some fourteen miles on Long Island and back again, about six weeks since, with a gentleman in his carriage, who incidentally mentioned that the horses, which were in fine order, were fed chiefly on ruta baga. We avail ourselves of the occasion to recommend the cultivation of this valuable turnip, and we can do it in a single sentence—viz. follow the same course exactly, as is prescribed above for the sugar beet.

Carrots also are considerably used in New York and Philadelphia, as a feed for gentlemen's carriage horses. The product of these is larger than that of the ruta baga, if the cultivation is deep and the ground strong—they may be much closer in the rows.

From the Farmer and Gardener.

GREAT CROP OF CORN.

The following letter from Mr. Wm. Miller, of Kent county, Md. proves conclusively, that much less ground than is usually devoted to the cultivation of corn, can by heavy manuring be made to yield the desired quantity. Here is an instance of 53 double horse-loads of green barn-yard manure being put on an acre, not only with decided benefit, but producing a result as astonishing as

lucrative, considering that the corn was only once harrowed and twice worked with the cultivator. The distance too, at which this corn was planted is worthy of notice, as it shows that close planting is not that scare-crow many imagine.

Kent Co. Md., Nov. 4, 1837.

Mr. Editor—Dear Sir—I have just finished measuring the corn that grew this year on a lot of mine of 5 acres, and have measured a hundred and five barrels and a half and one bushel of ears making one hundred and three bushels of corn per acre. The corn is called Semman's corn; it is a deep yellow, and not a gourd seed, but a very deep grain, and small red cob; has from eighteen to twenty-four rows on the cob. I have taken great pains in selecting my seed for the last three years. I threshed off three hundred and twenty bushels last May, and found from the measurement it measured from the barrel five bushels and seven-eighths of shelled corn. The following is the manner in which I prepared the ground &c. The soil is a stiff clay; one acre and a half of said lot was in clover last year, the balance in wheat. I put 265 two-horse cart loads of barn-yard manure on it; the manure was coarse made out of straw, corn tops and husks, hauled in the yard in January and February, and hauled out in March and April, and consequently was very little rotted. I spread it regularly, and ploughed it down with a large concave plough made by G. Cox of Middletown, Delaware, 18 inches deep. I then harrowed it twice the same way it was ploughed. I then had the rows marked out with a small plough, 3 feet 10 inches wide and an inch and a half deep. I planted my corn from 18 to 20 inches apart, and covered it with hoes; just drawing the furrows over the corn which covered it an inch and a half below the surface. When the corn was 4 inches high I harrowed it, and thinned it to two stalks in the hill; in about two weeks after harrowing it, I cultivated it again, which was all the tillage I gave it. We farmers of the eastern shore count our corn by the thousand; I had 38,640 hills on my lot, and I think my corn would have been better had I planted earlier. I did not plant until the 1st of April. I think the planting of corn shallow, and working it with the cultivator, is much the best way, especially on clover lay. If you think the above worthy of notice, you will please give it a place in your valuable paper.

WILLIAM MILLER.

LAFAYETTE COLLEGE.

THE Winter Term will close on the 4th of April and the Summer Term of twenty-one weeks, will open on the 3d of May. All the ordinary branches of an Academic and Collegiate course are taught—also, the German, French, Italian, and Spanish Languages. Manual Labour, in shops and gardens, is furnished to such students as desire it, and the value of it is deducted off the bills.

Charges.—For boarding, tuition, rooms, library, facilities for work, \$128 per annum—summer term, \$62, in advance. Those entering before the middle are charged boarding for the actual time, and tuition for the whole term. Those who enter at and after the middle, pay tuition, and for the actual time boarding. Evidence of good moral character must be furnished; and for youths entering, written directions as to their studies.

For farther particulars, inquire for a pamphlet deposited at the Bookstore, South East corner of Seventh and George street, Philadelphia, or of the President,

GEO. JUNKIN.

Easton, Pa., March 5.