

The Normal Review.

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CALIFORNIA, PA., DECEMBER, 1888.

50c. a Year.

Entered as second-class matter.

WINTER term opens Dec. 31.

SPRING term opens March 25.

FAYETTE COUNTY INSTITUTE will begin Dec. 17.

THE Byron King entertainment, in Normal chapel, Nov. 27, was a success every way.

ONE accession to the Senior class is expected next term, and quite a number to the Junior class.

MISS LOU CAMP, a junior of '88, is teaching in Somerset township, Washington county. She has a pleasant school and enjoys her work.

MISS ADA GUNN, '88, is teaching near Buena Vista, Allegheny county, Pa.

THE address of Mrs. ADDA FAIT (*nee* Pfisterer), class of '83, is Anadarko, Indian Territory. She hopes to visit Pennsylvania friends next spring.

MISS CLARA B. WORCESTER, '85, is teaching in the 23d ward, Pittsburgh. She has a pleasant primary room and is happy in her work.

MR. W. S. HEATH, a former student, from West Elizabeth, Pa., was married Sept. 25, to Miss Beekie Guthrie.

WITH characteristic enterprise the California Normal has secured the services of three of the ablest educators, for a week's special instruction next spring term—Col. F. W. Parker, Dr. Edward Brooks, and Dr. X. Z. Snyder.

THE teachers in Lower Tyrone township, Fayette county, know how to conduct a successful institute. Seven of the eight teachers are California students. A very interesting institute was held Oct. 20, one of the leading features being a class drill in arithmetic by Mr. W. D. McGinnis.

MR. A. N. STRICKLER, a student of last term is teaching near Layton's, Pa.

MR. A. S. FLANAGAN, '87, is engaged in teaching at Clarion, Iowa. All Normal students who go west ask that THE REVIEW be made to follow them. The farther away they are the more they value it.

PROF. E. L. RAUB, formerly a member of the Normal faculty, is winning laurels in his educational work. He is now principal of the Edgerly School, Somerville, Mass. Prof. Raub has decided abilities as an instructor, and is a worker.

LETTER from Miss Lucy E. Beard, class of 1883:

SCOTLAND, DAK., Nov. 9, '88.

My Dear Friends:—THE NORMAL REVIEW has many readers, but none, I am sure, who appreciate its pages more than *this* school-ma'am—in the "land of the Dacotahs."

It is one of the choicest messages the western breezes bear to me—laden with breezy facts and exhilarating truths. Although I have never called on my *alma mater* since graduation—five years ago last June—my good wishes have always been with her and the friends who still maintain her good name.

The eleventh day of last September found me started on my long journey—a veritable "leap in the dark"—it seemed, as I realized the boundless magnitude of the rolling prairies. The route from Vermont is very direct, so after traveling constantly for three days and nights I reached Scotland, where I was much refreshed by the kindly welcome of the principal and trustees.

Scotland is a promising, wide-awake town of 1,500 inhabitants, situated thirty miles northwest of Yankton, in the finest section of the territory. (*Via*, I never felt the meaning of that word, *territory*, till the last election, when the truth was forced upon me that I was no longer a citizen of the United States.) Our academy is very

pleasantly located in the northern part of town, and has just entered upon its third year.

One is not burdened here with the question: "What trade did your grandfather follow?" Every one has *just come*, and is willing to recognize the rest as fellow arrivals.

The autumn has been especially salubrious, with the exception of a few days when the wind

"Came as quarrels sometimes do
When married folks get clashing;
There was a heavy sigh or two
Before the fire was flashing."

Very cordially,

LUCY EVA BEARD.

MISS MARY PRATT, '84, is teaching her third term in Jewell City, Kansas. She receives a salary of \$55 per month.

FIRST literature lesson in Model School. *Teacher*—"Now I am thinking of a great American poet, still living. His first name is John. He wrote 'Snow Bound,' and other beautiful poems. Who can tell me his last name." *Boy in B class*—"Sullivan."

THE Library now contains a complete set of the "Famous Women" series—19 volumes in all.

THE California Normal seeks to follow neither the new education nor the old education, but a common-sense education both new and old, an education that educates. We believe in that teaching which aims at development rather than accumulation, which measures progress by increase of mental power, not by the pages of a text book.

REMEMBER, teacher, that the lower the motive you appeal to in your pupils, the lower will be the type of character that will result; the higher the motive the higher the character.

MR. AND MRS. GRANT DANLEY will move to California in the spring. Mr. D. is now principal of the Claysville schools.

Teaching Physiology.

If Dr. Hammond's statement be correct, that many school children of the present day are oppressed mentally and physically by too many and too hard studies, it is imperative that parents, teachers, and even pupils, should know what work the child's brain and body can and ought to bear. But this statement of Dr. Hammond will cause the introduction of the studies of physiology and hygiene to be objected to by some, on the ground that any additional studies will weigh too heavily upon the children. This objection is a valid one if the prescribed lessons are to be merely memorized by pupils, and if the children are to be rigorously marked for not remembering. Improperly taught, as these subjects too frequently are, they become distasteful to the pupil, discouraging to the teacher, and are calculated to do more harm than good. Properly taught, they will not be merely additional studies for the pupil to grind out with tears and labor and vexation of spirit, but will be welcomed because they lighten the work imposed by the routine of school life.

Until very recently, in order to obey the precept, "Know thyself," the teaching has been almost altogether anatomical, dry descriptions of the position, shape and use of bones, muscles, and the various tissues of the body. Unfortunately, much of this sort of teaching still prevails, even for young children, and some of the books in use foster such teaching. Fortunately, many of the books devote more space to physiology than to anatomy, but a few only give much attention to hygiene, which is the most practical of three studies, but its study should be associated with that of the other two.

Dr. Smith says: "The pupil learns that muscles are not bones, that the liver is a gland, and that the heart is a muscular organ, that the food in some way or other is turned into blood. Beyond this there lies a nebulous mass of learned names, barbarously pronounced and ignorantly applied, which the first contact with the world dissipates, as a summer sun does the mist of the morning. * * The text books * * * are mere table books and catalogues of names, or else their familiar style is so gelatinous that the student is unconscious of swallowing anything. One author treats the subject from a chemical standpoint, another from an anatomical standpoint, while the third com-

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bines the two with an unprofitable result."

We may judge somewhat of how a study is in general taught by the oral or written answers given by a number of pupils, in various schools, in reply to questions upon the study. About a year ago there appeared in the *London Architect* the following: "If instruction in sanitary matters is to be continued in schools, it will be necessary to supplement the lessons with visits to some such place as the Parkes museum of hygiene, unless the school boards are satisfied if the children get hold of a lot of hard words, or rather of sounds resembling them. At present it is supposed that sanitary science may be taught as easily as morality, by listening to a teacher read from a book. The children fail to catch the words, or they attach no meaning to them. Here, for example, are verbatim copies of the exercises in one of the Greenwich schools.

"Infections are brought on by bad smells, such as small-pox, measles, scarlet fever, glass-pox, s. c., they are brought on by bad drainages; they must be well ventilated. Infection disease are caught by touching such as charcoal, chloride of lime, etc. Measles, fever are called disinfectionous because they are catching.—Fainted. If a person as fainted, take her out in the open air lay her down with her head. And do the clothing round her neck and dashed cold water the face and hand and put smelling salts to her nose. Digestion is pained in the head, pained in the stomach, bad tempers. From digestion comes consumption, information, head-ache, neuralgia."

"These exercises may be thought amusing, but it should be borne in mind that every word represents more or less pain to some unhappy child, in endeavoring to recall ponderous words which were without meaning. Education in sanitary matters is desirable, but, as it is conducted at present in public schools, it must injure children's minds by habituating them to the use of words which they cannot understand."

In the English official reports we read, that "an examination of girls in board schools for prizes offered by the National Health Society revealed some curious items of information. One reply to 'Mention any occupation considered injurious to health,' was 'Occupations which are injurious are carbolic acid gas, which is impure blood.' An-

other pupil said, 'A stone mason's work is injurious, because when he is chipping he breathes in all the chips, and then they are taken into the lungs.' A third says, 'A bootmaker's trade is very injurious, because the bootmakers press the boots against the thorax; and therefore it presses the thorax in, and it touches the heart; and if they do not die they are cripples for life.' With a beautiful decisiveness, one girl declares that 'all mechanical work is injurious to health.' A reply to a question about digestion runs, 'We should never eat fat because the food does not digest.' Another states that 'when food is swallowed it passes through the wind-pipe;' and that 'the chyle flows up the middle of the backbone and reaches the heart, where it meets the oxygen and is purified.' Another says, 'The work of the heart is to repair the different organs in about half a minute.' One little physiologist replies: 'We have an upper and a lower skin; the lower skin moves at its will, and the upper skin moves when we do.' One child enumerates the organs of digestion as 'stomach utensils, liver, and spleen.'

In the clever little book compiled by Miss Le Row, entitled "English as She is Taught," appear the following genuine answers by pupils in reply to questions upon physiology and hygiene. Presumably most of these answers are from American pupils in American schools:

"Physiology is to study about your bones, stummick, and vertebry." "When you have an illness it makes your health bad as well as having a disease." "The body is mostly composed of water and about one-half is avaricious tissue." "The body has an infinite number of bones joined together by joints." "The spinal column is made of bones running all over the body." "Digestion belongs to the lower animals." "Digestion is the circulation of blood." "Digestion is reducing our food to plump." "Digestion is when food is taken into the stomach." "The gastric juice keeps the bones from creaking." "The eyes are set in two sockets in a bone which turns up at the end and then becomes the nose." "The three coverings of the brain are the diameter, the perimeter and the trachea." "The growth of a tooth begins in the back of the mouth and extends to the stomach."

As an additional contribution to answers, we add the following, taken by the writer from the note books of pu-

pils of one of the *high schools* of this country:

"Anatomy is dissecting of bodies generally lifeless." "Anatomy is study of parts of the body, physiology study of action of parts, hygiene is *application* of these parts." (Italics are ours.) "Kinds of bathing adapted to the age, quantity, quality and health of the person." "Supernator are the muscles of the back." "The hygiene of a muscle should have proper rest and exercise." "Hygiene is the study of the time and manner of the action of the muscles and large blood vessels." "The mouth is the commencement of the alimentary canal, and it extends through the throat, œsophagus into the stomach." "The extent of the mouth helps the digestion of food." "Nervous system a decided part of the body." "A young person who goes to parties and has great excitement has generally some brain trouble, such as St. Vitus dance." "It is far more reliable to drive out the fire of a room and put on extra clothing than sit in front of a burning fire." "Soap is important in carrying off the fat of the body." "What is eaten by the body has sometimes been taken as food." "The third cavity is the pelvis, which contain the vital organs." "In a diet of twenty-four hours a man should eat some of all the nutritious articles." "The first step in digestion is mastication and insalivation. Second, the muscles of the gullet." "A person is in fair health when he has the affinity to accommodate himself to change of climate and the ability to endure." "Respiration is the exchange of carbolic acid for oxygen." The substitution of carbolic for carbonic acid is frequently met with. "The times for bathing depend on the age of, location of and heat of the individual."

The bad spelling so frequently found in these note books shows, of course, ignorance or carelessness, either being reprehensible. (Esophagus is spelled "esofergus," "ecophagus," "sasofagus," "esolpusguit," "sarcophagus," "desophagus." The pancreas is spoken of as "the pangueous," or "the pantheis;" the parotid or salivary glands as the "perodic," "the galviatory and savilary glands," "the spiratory glands." The cerebrum is "the big brain, or celebra;" the cerebellum, "the little brain, or sedula." Suture joints are "sucher" joints. Hygiene is "hygine," or "hygene." Adipose is "adicoose;" sweat is "swett;" osseous is "oscious;" cancellous tissue is "tenselous;" thoracic duct is "carasse duck," and so on.

What are the remedial measures?

1. Encouraging the sale and use only of reliable text books written by physicians or sanitarians who have had experience as teachers. The mere compiler will magnify the importance of what may be considered by comparison as the non-essentials, and will endeavor to perpetuate absurd and untruthful statements because they sound well.

2. Health boards, health societies and sanitary associations have instructed by this time a goodly body of physicians in sanitary matters. These men and women may well be called upon to outline hygienic teaching, if not to be practical teachers themselves. In addition to instruction in normal and model schools by such special teachers, there should be a sanitary supervision of schools. The physicians appointed to do this work should look after the ventilation, lighting and cleanliness of school buildings, the spread of contagious diseases, the condition of wardrobes and closets, and the vaccination of school children, etc. In some cities the attempt is made to do this work through the health authorities, but it is unsatisfactory, as the physicians doing the work are, for the most part, political appointees, and not chosen for their knowledge of health matters. The work should be done by sanitary officers of boards of education. With proper teaching and proper sanitary supervision of the schools, hygienic subjects would be real to the pupil, and the value of the hygienic knowledge would be so apparent that interest instead of apathy would be the rule. In 1873, at the annual meeting of the American Public Health Association, President White, of Cornell University, said: "First, as regards public schools, I would make provision for simple instruction in the elements of physiology and hygiene, either by the use of some short and plain text book, or, what is still better, by lectures from some competent resident physician. I confess that I greatly prefer the latter method. Not only theory, but experience, leads me to prefer it. Were it not that we have made a great mistake in our system of public instruction by severing our common-school instruction from advanced instruction, we should by this time have a body of teachers in our common schools abundantly able to lecture to the pupils without a text-book." It is now seventeen years since these words were uttered, and what do we find in regard to the teaching of

physiology and hygiene? Just this that the number of physicians who teach in the schools is very small, that the average teacher of these subjects on duty has her teaching warped by her hobbies in regard to food, air, or some other hygienic measure, that she does not seem to be able to distinguish between essentials and non-essentials, and is carried away, it may be, by the dress or alcohol question. It has been found by experience that something else than the ability to lecture is necessary in order to get children to have correct ideas of the subject taught. The daily drill, the "line upon line and precept upon precept," the bringing of the pupil up to the level of the teacher by the teacher's coming down to the level of the pupil, are all necessary. It is probably because these were deficient that we are able to record the answers to questions in the earlier part of this article. It is not a question of how much such and such a child ought to comprehend, but how much does the child understand.

All honor to the teachers who do make the subjects they teach understood as well as interesting.

3. What to teach. The teaching should be reliable, interesting, practical, in order "to inculcate sound national views regarding the necessity of obedience to laws of health, to secure willing obedience to the enforcement of sanitary law, to correct social and personal habits which are constantly operating as causes of disease." If the evils of alcoholic drinks are to be portrayed, as they undoubtedly should be, let the teacher show the relation between intemperance, crime and immorality, and how intemperance results from imitation, habit, disease and poverty, rather than spend her time in endeavoring to detail the dire effects of alcohol upon every tissue of the body, and to picture upon the child's mind what a drunkard's stomach looks like, or how a hob-nail liver is. Let her not forget to teach about intemperance in eating, exercise, bathing, study, etc., and to have an eye upon the evil effects of opium and cocaine intemperance, which are not uncommon. Let her encourage self-control, mental, emotional, sexual, physical. Have her dwell on the advantages of "lend a hand" societies, rather than on prohibition measures. The teacher can show how "health is wealth," what are the advantages of a healthy home and surroundings, how disease tendencies can be overcome, what "filth diseases" are and

how they can be averted, how economical and nutritious food can be obtained and how prepared for eating. "In the personal habits of pupils, in the ventilating and heating of school buildings, in the location of wells, in the character of the out building, in the construction of school houses and laying out of the grounds, in a proper observance of the purity or impurity of the water supply, in the enforcement of laws for preventing the spread of contagious and infectious diseases, and in many other things, practical truths may be instilled into the minds of pupils, and impressions made that will never be effaced in after years." These are some of the subjects that should be taught; but in order to insure such teaching the teachers, especially in the primary grades, should have some definite plan and instruction given them by competent and practical physicians. Were this done there would be less overloading of pupils with technical and unnecessary anatomical knowledge.

4. How to teach. Now that the study of psychology is fashionable, we may hope, perhaps, for a better knowledge on the part of teachers of what is and is not necessary for healthy mental activity and development, what are rational methods of teaching; but as long as text books are ground out in questions and answers, just so long will memorizing be the rule for pupils, and the encouragement of observation and originality be the exception. Yet the child can be taught by practical methods and appliances about the admission of light and air to a room, simple tests for the purity of water, about filters, what soils obstruct drainage, why sewerage and drainage are necessary, what to do in accidents and emergencies, etc. The desire of the average child to observe and ask questions can be turned to good account instead of being stifled by rigid routine work. The energy born of observation and the intelligent application of what is learned by observing is healthful. As Herbert Spencer puts it, "Success in the world depends on energy rather than on information, and a policy which in cramming undermines energy, is self defeating."

If the teaching of physiology and hygiene is to be of service in strengthening the growth and development of individuals and communities, it is a matter of moment that these studies should be properly imparted.—"A Teacher," in *Popular Science Monthly*.

Memory.

Memory may be defined as the aggregate of mental impressions possessed by an individual, together with the power of recalling them. The extent and quality of these impressions, and the power of reproducing them, differ greatly in different persons, and in the same person, at different periods of life. "In some persons," says Locke, "the mind retains the characters drawn on it like marble, in others like freestone, and in others little better than sand." The causes of this difference are numerous. The most potent of these is, undoubtedly, original endowment. Different races of men are pre-eminently distinguished from each other by differences in respect to their cerebral organization, and, therefore, mental capacity—comprising, of course, the faculty of memory. But individuals of one and the same race differ in these respects widely from each other; children of one family inherit from their parents aboriginal mental endowments far superior to those inherited by the children of another family; and, hence, for the battle of life, individuals are variously equipped from the time of birth. The most perfect original impressions are, as a general rule, those produced in the minds of children, and so far as that part of mental culture—the development of good memory—is concerned, our aim should be to maintain in manhood and womanhood that perfect impressionability of the brain which exists in healthy childhood. There is not one memory only, but many memories, in each mind; and one kind of memory is pre-eminently developed in one person, and another in another. "Memory," says Ribot, "may be resolved into memories, just as the life of an organism may be resolved into the lives of the organs, the tissues, the anatomical elements which compose it." Referring exclusively to the perceptive faculties, we need only mention a few thoroughly recognized facts in proof of this statement. Persons having a strongly-developed organ of what the phrenologists call "individuality" receive peculiarly distinct impressions of external objects,

and, therefore, of persons; hence they immediately recognize them on seeing them again, and easily picture them to themselves from memory. Persons abundantly endowed with the organ of "locality" exhibit an astonishing power of finding their way in regions previously unknown to them, and of remembering the character of those they have visited. Persons thus endowed, when strongly impressed by the contents of a passage in a book they have read, remember exactly the part of the page in which the passage occurs, and whether the page itself be a left-hand or a right-hand page. The number of degrees of capacity of perception and recollection of colors is scarcely less remarkable—the power of recollection of them being always proportionate to the power of perceiving them and signaling their differences. Similarly, he who possesses the musical faculty in an eminent degree possesses in a like degree the power of learning and remembering the pieces of music to which his attention is directed. A striking proof of the distinctively individualized character of our various faculties and memories is presented in the often observed fact that the perception of musical sounds and the perception of time, though both alike essential in the mental constitution of a good musician, differ greatly in their relative strength in different individuals—so that while one may be a skillful musician he may be an indifferent timeist, and *vice versa*. In the former case the orderly succession of notes of a musical passage is easily remembered, but the time-intervals, which are a distinctive feature of it, are remembered less easily; whereas in the latter case the memory of time is stronger than is that of tune. Equally notable is the fact that persons who are especially able as calculators recollect numbers with peculiar facility. Moreover, persons especially gifted with the faculty of language have a proportionate facility of recalling words, and of quoting from memory long passages which they have previously heard or read: "Cardinal Mezzofanti, who is said to have known more than a hundred different lan-

guages, used to declare that he never forgot a word that he had once learnt."—*Westminster Review*.

"Shooting Stars."

This is one season for shooting stars, and bright-eyed observers will not have to gaze long in the southwest heavens on any right clear star-light night without being gratified with the view of one or more of these celestial visitors. They are only the regular annual meteors, however. It seems very singular at first sight that even such erratic bodies as shooting-stars should bow to the law of periodicity which rules the heavens and the earth. The older people failed to observe this regularity, but saw in the apparent convulsion of the heavens only confusion and menaces of destruction. Fanciful legends of warring and threatening gods have been twined about such strange sights by every nation to remote antiquity. Our own generation is not free from the superstition that a falling star is a sign of death, but more intelligent information has shown that they are mere physical phenomena, subject to the forces and obeying the same laws as those we are familiar with on the earth. Astronomers have by no means solved the whole problem of these curious bodies. Enough however, is known to make it evident that they are material bodies, in no wise different from some familiar earthly matters. They are not stars at all, but only drifting masses of matter, generally minute in size, but circulating in space with much of the regularity of the great globes we call planets. The same wonderful law of gravitation urges them on in their usual course about the sun as influences of the planets and the earth. The same force that suspends the massive planet Jupiter, hundreds of times the size of the earth, supports with equal certainty every little fragment of a world, and carries it in the same general course about the sun. It is only when that course is interrupted by too close proximity to the earth's atmosphere that we gain a knowledge of its existence. Then the violence of the

collision heats the little meteorite to an intense degree. It glows and blazes for a few moments and disappears forever, or occasionally its fused mass falls to the earth and buries itself in the soil. The question whence these fragments come is a most interesting one, but one which has only been partly answered. In composition, judging from the few which reach the earth's surface, they do not differ from some constituents of our own globe, and the thought immediately suggests itself that they may be the *debris* of a world destroyed by some mighty cataclysm in ages past. The evidence, however, does not favor this view. If the position and direction of periodic meteors are carefully mapped they will be seen to radiate in a general way from some central point in the heavens, and from their general course astronomers have been able to determine, approximately, the course they were pursuing when they came in contact with the earth's atmosphere. Mention was made a few days ago of the lost comet called Biela's, which, after appearing regularly for several periods, broke into fragments and then disappeared. On the date at which the comet should have reappeared, and radiating from the point of the heavens which it should have occupied, a shower of meteors was observed, and since that date this has been repeated. This points strongly to the theory that the meteors are a portion of the *debris* of the comet, and since the August meteor showers correspond somewhat closely with the track of another comet there seems a reasonable probability that annually we plunge into the very substance of a comet's tail, which is believed to be composed of just such disconnected fragments of matter.—*Philadelphia Ledger*.

The Human Conscience.

Whether or no man's conscience inclines him to the right—that is to say, to that which biblical and civil laws concede to be just, is an interesting ethical question, and one on both sides of which much may be said. It is a frequent confession of

the great Kant that the conscience of man and the stars of heaven above all else excite awe within him, inferring, as he does, that the human conscience tends naturally toward the good—*i. e.*, what has been found to be, or at least, appears to be, the best for society in general. Mr. Herbert Spencer, in a recent paper, takes issue with Kant in this. He says that in Kant's day there were not so many books of travel as now, not so many expert investigators abroad, and, consequently, not so much was known of savage tribes or half-civilized peoples, but that now the conscience of man, as inductively known, has none of that universality of presence and unity of nature which Kant's sayings tacitly assumes. He quotes Sir John Lubbock in support of his position ("Origin of Civilization," pp. 404, 405): "In fact, I believe that the lower races of men may be said to be deficient in the idea of right. * * That there should be any races of men so deficient in moral feeling was altogether opposed to the preconceived ideas with which I commenced the study of savage life, and I have arrived at the conviction by slow degrees, and even with reluctance." Mr. Spencer first quotes from the observations of travelers of known reliability to show that the savage conscience often holds as worthy of respect the expression of those qualities which those of the higher civilization are taught to abhor. Then he shows that the savage is sometimes found practicing all the virtues; and again, that so-called Christian peoples often thirst for blood, the stronger robbing the weak, the rich grinding the faces of the poor. In other words, he holds that the conscience is neither wholly good nor wholly bad, tending neither the one way nor the other, but adapting itself to circumstances and conditions. Kant believed the stellar universe to be evolved, and, from the meager evidence before him, attributed to the human conscience the same origin and the possession of a real nature.—*Scientific American*.

A SPAN is ten and seven-eighths inches.

Literary Immortality.

It is a commonplace of literature that the truly successful writer is he whose works live. "Popularity by itself," so it runs, "is no test of merit; the true test is lasting popularity. Works which are remembered when the authors have passed away, these are the works of sterling merit, and the great literary works are those which are not for an age, but for all time." Now I can readily understand that works which are not really good will soon pass into oblivion. We know that fashion may give a momentary popularity to an affected style or a morbid vein of sentiment, but it is equally obvious that fashion has commonly but a short term. What is not so obvious is why sterling merit, or even great merit, should have the power of making a literary work immortal. For may not the most striking truths become trite after a certain time by repetition? Goethe himself said that he knew not what he should have done if he had been born in England, if he had grown up always aware of Shakespeare behind him, always aware that everything worthy to be said had been said already. But will not this reflection, if we give way to it, carry us very far? If no writer can expect to live unless he have something which is and always will remain peculiar to himself, not to be found elsewhere, who can be safe? Can there be such a thing as literary immortality? Livy has lived two thousand years; why should not Macaulay also expect to do so? We see a whole series of writers in the great times of Athens and Rome acquiring the rank of classics, rising above the fluctuations of fashion into a region of stability, translated to a sort of sky of posthumous fame. We see that no change of time affects them any longer. Why should not this happen again? Indeed, in modern Europe we see a phenomenon not wholly different. Modern Italy, France, England and Germany have their classics, their series of consecrated writers, who are compared to the classics of Greece and Rome. This is why it seems not extravagant for a writer of the

present day to look forward to a similar immortality, and to flatter himself with the hope that he, too, will be read two thousand years hence. Now, if we reflect a moment we shall recognize that the analogy of Greece and Rome does not really hold. The posthumous fortune of the classics has been very special; it can not be expected to betell the moderns. If they have maintained their ground, it has not been purely by merit, but by a series of very peculiar accidents which are not likely to recur. By the decay and confusion of Europe the Latin classics were carried over the first thousand years. So much being gained, they acquired a new title to attention, for thereafter they appeared as monuments of an extinct civilization. If in the present day they are so interesting to students, this is partly because of the vast amount of history of all kinds which they hold in solution; it is not purely the result of their literary excellence. Each generation has now its own writers, and what a multitude of writers! We are abundantly supplied, so that we can occupy every vacant half hour with some book which we never saw before, and which is expressly adapted to our circumstances. There is reading of every kind—reading for the invalid's room, reading for convalescence, reading for journeys, long or short, reading for youth, for boyhood, for infancy, reading on great subjects and on small, reading in which great subjects are treated as if they were small, reading in which small subjects are treated as if they were great; and under all these heads an enormous over supply. Against such an overwhelming competition of new books it is difficult to imagine how old books can bear up. At least in no former age have candidates for a literary immortality been situated so disadvantageously. I do not here call in question the possibility that once or twice in a century some author may appear so profoundly original that later times may cherish his works as inestimable and irreplaceable. I do not refer to supreme authors, whether ancient or modern. Literary immortality of that sort must be

considered by itself. It is when less exceptional authors are proclaimed, or proclaim themselves immortal that I have my misgivings, when the ordinary man of letters, eminent perhaps in his generation, is described in obituary notices as having produced "perhaps two or three works that are likely to live," or when such a man, in reviewing his own career, says that "he is, indeed, conscious of many failures, but yet feels a modest confidence that posterity will place him in the rank which he feels he deserves." This is a view which is rendered tenable by the example of such ancients—not as Homer or Virgil—but as Tibullus or Statius. It is because writers of no pre-eminent genius have lived two thousand years that at the present time the successful writer of a season flatters himself with the prospect of writing for posterity. We call Addison and Johnson and Pope English classics. Their works are said to live; yet can we consider these works as so absolutely inimitable, unapproachable? May not a modest man of letters cherish the hope that, a hundred years hence, his essays or poems may have a position in English literature as established as the "Spectator" or the "Rambler" or the "Essay on Man?" Hardly, as it seems to me. The conditions of literature are too much altered. There is an age for each nation when its language has not yet been adapted to the purposes of literature. The different styles have not been distinguished. The words proper to prose and poetry, to business or conversation, or grave argument and philosophy, lie in a confused heaps. This age must last till masterpieces appear which may serve as models in different styles. A modern writer might surpass Addison in ease, or Johnson in gravity, or Pope in the brilliancy of his couplets, without winning a rank in literature at all similar to that of Addison, Johnson or Pope. What do I conclude? Is it that for the future there will be no more literary immortality? We might indeed almost fear that in the growing abundance of new books we may be driven to a sort of literary Statute of Limitations, by which only

a fixed period of twenty or thirty years might be granted to the best authors. But I do not go this length. I believe that other palms will yet be won, that writers will still arise who will be read for a hundred years; as to a thousand I had rather not speak. The conclusion I would draw is rather this: Let every one who writes aim as high as possible; let him write to his ideal, and by all means let him treat with contempt the passing opinion of the day. But I would not have him write for posterity, or flatter himself that some future age will do him justice if his contemporaries neglect him. It may indeed prove so, but posterity is likely to be very busy; I doubt whether it will find time for redressing any injustices that the present age may commit. Rather, I imagine, it will be so overburdened with good literature that it will be forced to lighten the ship. And so I am led to think that real literary immortality is exceedingly rare.—*Prof. J. R. Secley.*

Young Barbarians.

These words have been used lately, and more than once, of the boys and girls growing up among us. There are many modest and polite children, of course, yet these unpleasant words do apply with terrible truthfulness to scores, if not hundreds, of the young people in our cities and large towns. They are flippant and impudent, sharp and unscrupulous, profane and addicted to vulgar slang, too often seasoned with indecency. They pay little respect to either the civil or moral law, and in their opinion a sin is not evil unless it be found out. They swarm in many streets after dark every night, not only rendering the public highways uncomfortable by their rudeness, but also learning and communicating lessons of gross evil, which are sure to bear fatal fruit. This state of things demands instant correction. The "hoodlum" element is a menace to the safety of society. It has been allowed to grow until it has become a prolific source of crime, and it is not easy to control it. Various remedies have been men-

tioned, and they are good. One man says that there is "too much charity and mercy in the present moral administration of society." If he mean, as he doubtless does, that parents, and all others who have the care of children, too often exhibit the spirit of easy good nature, rather than a wholesome firmness, he is right. Children need to be made to realize what duty is and that it must be done, more than many now are made. Another declares that our public schools ought to teach fewer useless branches, and pay more heed to inculcating good manners and morals, and many will agree heartily with him. Another urges that the prevalent evil is due largely to the fact that children are allowed to ramble freely after dark, and he certainly is right in saying, "Keep them at home." But lack of all, and more important than all such specific remedies, there must be a genuine arousing of public sentiment. At present many of the very people whose children belong to the ungovernable class do not themselves think the matter one of serious importance. Perhaps they used to have the run of the streets when they were young, and escaped harm, or do not yet understand how much harm they received. Perhaps they would rather that their children behaved better, but know that their own slackness long ago caused them to lose all control over their boys and girls. The number of parents is sadly large who have learned what it is to be openly and impudently defied by their own offspring. In any case, we all need to wake up to the fact that such parents, and all parents, must be toned up to do their duty. We are glad that the subject has come up again. Let it continue to be discussed. Those who are aware of the facts well know that there is sore need of alarm and of reform. Law can do something, but most of what is necessary must be done by those who have direct charge of the young. Young men and young women must be taught to be decent and orderly in behavior, to avoid frivolity and vulgarity. Obedience to parents and teachers must be insisted upon. Family discipline

must judiciously, but resolutely, be revived where it has fallen into abeyance. Outward respect, at least, for the sabbath must be required. And these lessons must be learned in childhood. The "young barbarians" can be civilized, although it is not an easy task, and it is high time that they were.

A CURIOUSLY considerate invention has been produced by a Frenchman in the shape of a noiseless clock, for use more especially in sick-rooms. In place of the usual pendulum the hands are set in motion by the unrolling of a chain, the end of which is fastened to a buoy floating in a tank of liquid. This fluid escapes at a uniform rate, and can be utilized to feed a lamp-wick, thus giving the apparatus the double character of clock and lamp. When the lamp is lighted, the necessary diminution of liquid takes place by combustion, at other times by carefully-regulated dropping.

It goes without saying that every one will probably have a hint (though often only a slight one) as to the sensory bent of his apperceptive processes, especially any one engaged in mental labor. If he is a "visionaire" he will have noted how much better he remembers what he reads than what he hears; that he often remembers the position of a word on a page; will, perhaps, have a good memory for forms and faces; will find that he can easily read while talking is going on; that he readily gets absorbed when his eye is occupied; and so on in a hundred ways. The "auditaire" will note that a lecture impresses him more deeply than a review article; that he imagines the sounds of the words as he reads or writes (and is usually thus a slow reader); that he repeats aloud what he has written, to judge of its effect—he wants to know how "it sounds" even when it is only to be read; he observes harsh sound-combinations in style (the "visionaire" observes misprints); talking easily disturbs him when reading or writing, his attention being involuntarily drawn to the conversation.

Clioian Review.

MOTTO—NON PALMA SINE PULVERE.

MARY VOGEL, Editor.

A CHANGE of schedule on our railroad gives us a fast express daily to and from Pittsburgh.

DR. NOSS has been engaged as instructor this fall in all four counties of our normal school district, and in Lawrence and Center counties besides. He has agreed to spend a day or two at the Indiana county institute, holiday week.

MR. L. W. LEWELLEN, a staunch Clio, is now assistant principal at Connellsville.

MR. W. E. MILLER, a last year student, is teaching an eight-months' term near Elizabeth.

THE work in the Model School, since the institute, has been taken up with as much interest as was previously manifested. The Seniors welcome the "little ones" back.

MISS HANNAH STEPHENS, of the class of '88, and also a faithful Clio, is teaching in a primary room in Elizabeth, and her work is proving a success.

"IN education the highest skill consists in knowing how to unite, by a wise temperament, a force that restrains children without repelling them, and a gentleness that wins without enervating them."

THE Seniors have for their next classic: "Are poets born, not made?" or "Chaucer and Spenser in the light of their environments." They have about agreed that they will have two Thanksgiving days next year, one after their classics are written, and the other in November.

CLIO has shown such a marked improvement within the last two weeks that the ladies would be justified in saying, "We are the cause," as they now take an active part in debate, etc.

MR. RHOADES, one of last year students, is teaching at Dawson, and is said to be doing good work. He has established a literary society there.

THE following officers were elected last week: Pres., Mr. Crow; V. P., Miss Allie Baker; Sec'y, Miss Vogel; Attorney, Mr. Lewis; Treas., Miss Campbell; Chorister, Miss Burke; Critic, Miss Duncan.

DR. AND MRS. NOSS, Professors Hall and Hertzog, and Miss Singer have returned from Washington county institute, and are taking up their regular work, hoping to improve by hints received there. Mrs. Noss now feels convinced that the right plan is being pursued in the Model and all that is necessary is to have the work pushed forward.

MISS MARGARET SHEPLAR spent her Thanksgiving with Miss Lyde Warren, at East Elizabeth.

DURING the last month Misses Darsie, Dague, Eichbann, Goe, Goodman, Gilmore, Hank, Hugg, and Mr. Day have given their chapel recitations.

MISS ANNA B. THOMAS, '80, is now a teacher at Braddock.

MRS. BRYAN, Librarian, paid a short visit home last week.

MISS EVA HAMMITT, of McKeesport, paid Miss Anna Reed a visit during institute week.

MISS RUFF and Miss Ewing spent their Thanksgiving at Miss Minnie Coursin's, McKeesport; Misses Josie and Lizzie Musgrave at Miss Viola Boyd's, near Fayette City; Misses Burke, Lessie and Rena Armstrong, at Miss Chester's home, near Bellevernon.

THE exhibition work sent to the Washington county institute was very highly appreciated. A similar exhibit of Normal and Model work will be sent to the Somerset county institute, Dec. 31.

MR. GEORGE DARSIE, who is now a student of Bethany College, in West Virginia, spent Thanksgiving at his home in California, Pa.

MISS ROLEY, an old Clio, sends favorable reports of her school. She seems to realize that teaching is a more difficult task than studying.

CLIO will not have society till Dec. 7th.

MR. E. H. DARSIE is spending his Thanksgiving week at home. He finished a four year's course in mechanical engineering at the "Pittsburgh Locomotive Works" last January, being the first man who has gone entirely through their drawing room.

MISS LIZZIE CONWAY, formerly a teacher at Monongahela City, and once a welcome visitor at the Normal, writes from Germany, where she is studying, there is no country equal to the United States in its educational advantages for girls.

A YOUNG child's vocabulary is generally underrated by teachers. An article appeared in the *New York School Journal*, by Dr. Noss, consisting of a vocabulary of 257 words which are thoroughly understood and used by little Mary Noss, only 2½ years old. Immediately after the appearance of the article Dr. Noss received from Supt. Greenwood, of Kansas City, several similar articles, and from Supt. Balliet, of Springfield, Mass., a letter expressing his pleasure that such a vocabulary had been compiled, and saying that he would have it printed for the use of his teachers. Primary teachers should get the exact measure of a child's knowledge when he enters school, and build on that foundation.

TOUCHING the influence of heredity, Dr. O. W. Holmes says: "You can make anything you please of a boy if you commence with his great grandfather."

WE are grieved to learn that Miss Emma M. Willson, a former student and graduate of this school, must resign her position as teacher in Elizabeth high school on account of poor health. We hope for her speedy recovery.

A TEACHERS' institute was held at Masontown, Pa., Nov. 30 and Dec. 1. An interesting and profitable meeting was had.

Philomathean Galaxy.

MOTTO—PEDETENTIM ET GRADATIM.

ANNA BERTHEL, Editor.

THANKSGIVING vacation was from Wednesday evening till Monday morning.

MISS RUFF, teacher of English, accompanied Miss Coursin, of the Senior class, home for Thanksgiving.

HANDSOME bookcases have been placed in the recitation rooms of Misses MacPherson and Ruff and Prof. Bryan.

THE NORMAL REVIEW is so highly appreciated by former students that, if not promptly received, letters of inquiry are sent.

MR. GEO. FOWLES, '88, a very successful teacher at Powhatan Point, Ohio, expects to return to the Normal for a few weeks during the spring term.

MISS HELEN HOOK, one of last year's staunch Philos, is teaching near home and awaiting the spring term with interest, when she expects to be one of our number.

MR. R. M. CURRY, of the class of '87, visited the Normal Nov. 16th and 17th.

THE following officers were elected last week: Pres., Miss Dague; Vice Pres., Miss Jennings; Sec., Miss Ache; Attorney, Mr. Pierce; Treas., Miss Lulu Whitsett; Critic, Miss Brown; Marshal, Mr. Huggins.

QUITE a number of new students are expected at the opening of the next term.

THE exhibits from the Normal, of which there was a large collection at the Washington county institute, were admired and praised by all.

JUST one-half the members of the Senior class have appeared before the school and delivered their chapel recitations.

MRS. NOSS gave Seniors their first lesson in embroidery work. It was quite interesting to watch the young men plying the needle. And they really threaded their own needles, too.

REV. MR. SILVEUS, of Coal Center, the friend of the students, visited the school last week, and treated us to a very pleasant speech from the stage.

MISSES MCCONNELL, Westbay, and Packer, all of the class of '88, spent a very pleasant evening with Miss Boyd, a member of the same class.

PHILOS ever desirous for the improvement of their society, are continually devising improvements. Fearing that the old form of program had grown monotonous to its members, it has decided upon a change which will go into effect Friday, Dec. 2, 1888. Instead of calling the classes, as has been the custom, but one performer will be called forward at a time. In this way we can alternate, having a recitation, an essay, and a reading; these interspersed with music. It is hoped that the change will be beneficial, and that the ever faithful Philos will continue to make improvements.

MR. LEE SMITH, a Junior of '88, expects to enter the Senior class at the beginning of next term.

THE Seniors have just handed to Miss MacPherson an essay entitled "A Parallel of the Four Great Reformers," and another of a similar character is to be written in the near future.

MISS RUFF continues to give the Seniors thoughtful subjects for a few minutes discussion at the beginning of recitations in General History. All enjoy them.

DR. NOSS, who has been absent from the Normal for two weeks, attending county institutes at New Castle and Washington, has returned.

MISS JENNIE THOMAS, one of last year's busy workers, now teaching at her home in Webster, visited the Normal lately.

MR. A. S. FLANIGAN, of the class of '87, is teaching in Clarion, Ia.

MISS MARY MCFARLAND, class of '88, is teaching very successfully near her home.

THE music given by the choir in Philo Society is highly appreciated by all. The interest shown by the members of the choir is evidence that it will still be improved.

MR. GEO. T. THOMPSON, a loyal Philo, visited us Nov. 25th and 26th. He is an earnest young man and we hear he is winning the title of a good teacher. Philo extends her congratulations for his success.

MISS NETTIE CRAWFORD was unexpectedly called home, Saturday, Nov. 24, and will not return until the Monday following Thanksgiving.

AMONG the visitors at Philo, on the evening of the 2d, the society was glad to see Mr. Albert Guffey, of the class of '87.

AMONG the number of new books that have been placed in the library since the opening of this term are the complete works of Thackeray and Ruskin; Motley's Histories, Famous Women Series, Boswell's Life of Johnson, and a complete set of the Waverly Novels.

THE students that went home to spend Thanksgiving were pleased to find we had our Thanksgiving dinner here last Sunday. The dinner was enjoyed. It was amusing to watch the grimaces of the teachers as they attempted to carve, and the patient, hungry faces of the students as they waited to be served.

MISS FRANCES NICKERSON of the class of '88, and a staunch Philo, spent her Thanksgiving vacation at this place, with Miss Yarnell.

MISS ELVA HERTZOG, '85, who is teaching near Monongahela City, spent Thanksgiving with her parents, at California.

SUPT. B. W. PECK, class of '79, of Fulton county, held his institute Nov. 19-23. Col. R. H. Conwell delivered two of the evening lectures.

Shakespeare's Wisdom of Life.

Into what manner of man will Shakespeare help to fashion one who submits to his influence? In the first place, he will lead his pupil away from all doctrinaire theories of life, from all thin abstractions of the intellect, from all luxurious solitudes of the imagination, and from all merely contemplative wisdom, and will direct him toward the world of human action and character and passion. He, if any writer, helps to make us real and to bring us into fruitful relations with our fellows. His dramatic method, compelling us to shift our point of view from moment to moment, and yet keeping us steadfast in a research for moral truth, is opposed to that dogmatic temper in which many persons approach life, and trains us to apprehend with swiftness, ease and accuracy the relative aspects of things, and the relative value of feelings which otherwise we might wholly deny, or else accept as absolute and final. He sets forth human life as an affair of inexhaustible interest, and, though he does not profess to unriddle its mystery, he communicates to us the courageous temper in which we can accept things not understood. He sends us forth to grapple with the world for its prizes of love and laughter and anguish and tears. It is not every eminent poet who does this. To Wordsworth life seems of interest less for its own sake than because it furnishes material for that serene yet ardent contemplation characteristic of his mind. To say of Wordsworth that he cared only for external nature is, indeed, wholly untrue; he cared profoundly for man, but nature and man alike are given to the reader only after they have been subjected to certain Wordsworthian processes of feeling. He does not so much place us in direct contact with actual life as impart to us his own peculiar manner of contemplating both external nature and the heart of man. And if it be so with Wordsworth, still less does Shelley or Keats plunge us in reality or help to make each of us an experienced denizen of the city of men. The one fixes our gaze upon an ideal of

beauty until we grow faint with desire, like Endymion in love with the moon; and she visits us only in our dreams. The other thrills our nerves as with music, and leaves us in an exquisite excitement of expectation or regret; or else he pleads with us on behalf of certain abstract doctrines, and would fain transform each of us into a missionary of the ideas of the revolution. But Shakespeare interests us directly in men and women of all sorts and conditions; and in men and women especially through what is deepest in them, the play of their passions and the inmost virtue of their spirits. We acquire from him a habit of studying our fellows each one at first hand for ourselves, and of thinking far less of their creeds and opinions than of their temperaments and the vital physics of their passions. We come to conceive of many of the problems of human life not as if they were logical puzzles, but rather as so many questions of moral chemistry. We have observed a thousand experiments, and can anticipate aright how this group of feelings or that will behave when this new reagent or that has been added to the retort or the crucible. And thus we advance to be adepts in the art of living. We might name Shakespeare in the phraseology of modern criticism, a realist; but, unhappily, this ill-treated word "realism" suggests, at the present moment, a school of writers whose effort seems to be to give us assurance that the real means the brutal and the base. Such, certainly, was not Shakespeare's belief. He studied the realities of human life and character not in the Parisian gutter, under the filthy lamplight, amid reeking slums, in the poisonous tavern, and the house of shame—though these Shakespeare's imagination could visit, as in "Measure for Measure," with a purpose; not there, but through many centuries, in many lands, and in his own great heart; among Venetian palaces, in the moonlit garden of Belmont, in the banquet hall, and among the tombs of Verona, in the capitol of Rome, on the Athenian seashore, in the Egyptian monument, upon the platform of Elsinore, on the wild

heath near Forres, by Thames's side and in the Windsor streets, among the watch-fires of Agincourt, with Autolycus at the rural junketing, and in the enchanted island of Prospero. And, having studied life in all its variety, and searched through all its secret windings and cavernous abysses, having studied it as no other man has ever done, Shakespeare brings back his report of human nature—a report which, indeed, has dark things to declare, yet one which, on the whole, encourages us to think nobly of God's creatures, man and woman. If there is an iron-hearted Goneril, there is also a Cordelia in the world. If Iago eats the dust and stings, and Macbeth plunges both hands deep in blood, Queen Katherine stands before her judges with the dignity of a blameless spirit, and Perdita runs along the greensward in her girlish innocence and joy, or plucks her cottage garden blossoms—herself an inland flower—for the shepherd's festival. Such realism as this stands a whole hemisphere apart from the brutality prepense which now usurps the name. One cause of the difference is this: Shakespeare was a realist who was constantly tempted by his passions and his imagination to become an idealist, and who was saved from this only by his determination to see things as they are, to take note of all facts, and to inspect each fact on all its sides.

What Shall the Public Schools Teach.

I expect to meet with much opposition when I declare my conviction that our public-school system will sooner or later have to be radically remodeled. It is an academic system—a university curriculum on a restricted scale—similar in kind, differing only in degree. The culture which it imparts is academic, and has but small reference to the life which the great majority of pupils will have to lead. It kindles an ambition in them which, in nine cases out of ten, is destined to be disappointed, and engenders, as a consequence, discontent and disaffection toward the state which fails to satisfy the expectations it has aided in arousing. Is not a

large proportion of humanity predestined to failure? Has any system of education been devised which unerringly leads to success? I answer the last one unhesitatingly in the negative. There are failures, there always must be failures, however excellent the system of education, because a large number of children are constantly born who are ill-adapted to their environment. But one of the objects of education is to minimize the effect of this imperfect adaptation and thereby minimize the number of failures. The number of children who are absolutely unfit for any kind of honorable activity is happily very small. An overwhelming majority would make useful men and women, in more or less limited spheres, if they were trained to meet and cope with actual conditions—if they were fitted by education for the life which, in all likelihood, they will have to lead. The educational system should be adapted to the average intellect, and take no account of exceptions. It should aim first to inculcate that which is useful, instead of aspiring to impart accomplishments which foster tastes and habits uncongenial to the actual environment of the children. The kind of teaching which the public schools now furnish (beyond reading, writing, and elementary arithmetic) is calculated to make the pupil ill at ease in any position requiring physical labor. He has been taught there need be no limit to his ambition; that it is the glorious privilege of every American to aspire to anything under the sun, and that fortune and power are within the reach of every son of the Republic. I have myself heard many discourses of which this was the gist; and the selections in the various school-readers bear testimony to the same spirit. I do not, of necessity, reprobate this spirit, although I think that as a predominant and uniform tendency it is unwholesome. It is of more importance to impress a child with his duty toward God and man than with God's and man's duty toward him. It is better to inspire him with a sense of the dignity of honest toil, even in the humblest sphere, than to stimulate his ambition for

the Presidency of the United States. A man's dignity depends upon his character and his usefulness to his fellow-men, rather than upon the country where he was born; and, although patriotism is a noble sentiment, it should be made to foster personal worth for one's country's sake, rather than empty boasting and an overweening self-esteem. The present curriculum of the public schools takes little or no account of sex, and gives girls practically the same education as boys. I am aware that there is a large class of people who think this a great recommendation. But in an education which had utility in view, the distinction of sex could not be ignored. Girls, in the normal order of things, are destined to become wives and mothers; and I, for my part, can see no objection to their recognizing this destiny, and being educated to discharge the duties of that noble vocation with the highest possible efficiency. That objectionable prudery which makes every allusion to future motherhood a tabooed subject between teacher and pupil is responsible for a large fraction of the ills of society. I would have girls instructed in hygiene, the properties of food, the diet proper to infants, and, as far as possible, in all the practical branches which have the most direct bearing upon the life which they are to lead. It is of very small consequence whether they know decimal fractions and the boundaries or population of China; but it is of the utmost consequence that they should not waste the hard earned money of their future husbands by an unintelligent household *regime*, and it is also of much importance that they should know how to take care of their children, how to escape avoidable disease by a rational diet and regard for sanitary laws. I doubt if any one realizes the enormous waste of life and health which the ignorance of mothers entails upon society. A young mother, uninstructed in the subjects mentioned, is bound to experiment ruinously with her own health and that of her children, and gain experience at the cost of untold tears and suffering. Witnessing this common tragedy, I have not been able to re-

strain the reflection that we are lamentably failing in our duty to our girls, both rich and poor. We give them a stone instead of bread. We give them ornamental accomplishments, and we teach them to blush at the thought of the state for which God has destined them, instead of arming them with useful knowledge which would enable them to cope intelligently with the conditions they will surely encounter. What nobler office can the public schools fill than this? Even if the cost be doubled, the benefits accruing to the state from this kind of education would be many times multiplied. Instruction in the chemistry of cooking alone—a very simple and fascinating subject—would save the community, in the aggregate, ten times the amount of increased taxation. Skill in the making of simple garments would save another item scarcely less considerable. The poor are wasteful from ignorance, and their ignorance in all practical subjects bearing upon their own lives is directly chargeable to our system of instruction.—*The Forum*.

LESSONS especially designed to cultivate the power and habit of observation appear to be less widely used than is desirable. It is probable that the erroneous methods of teaching too often employed in such lessons have led to meager results and consequent distrust of this branch of school work. The skill required to teach such lessons properly is apparently less common than skill in teaching other branches. The mistake often made is that of supposing a pupil is learning how to *observe* when he is merely listening to what his teacher *tells* him to *remember* about an object he may be looking at. So-called object lessons, taught by such false methods, have no tendency to cultivate the power and habit of observation, but rather to confuse and stultify the child's mind. On the other hand, observation lessons *in which the children really do the observing* not only develop the observing powers, but also furnish the children's minds with a stock of clear ideas, which constitute the best possible material for language work.

What is Known of the Earth.

The influence of the movements and figure of the earth may everywhere be traced among the phenomena brought to our knowledge by the more and more complete exploration of its surface. The daily and annual motions of the globe, subject to the effects of the spherical form of the earth and the direction of its axis of rotation, determine at all parts of its surface the amount of heat and light received from the sun, and thus regulate all the conditions of existence upon it; they give rise to the varying length of days and of seasons at different places, and to a multitude of recurring phenomena which characterize or influence the animate and inanimate world. In whatever direction we turn are to be found alternations of what may be termed terrestrial work and rest, day and night, summer and winter, periodical winds extending over longer or shorter periods, seasons of rain and dry weather. The tides of the ocean, and the less apparent though not less regular periodical oscillations of the atmosphere, as well as the little understood variations in terrestrial magnetism, are consequences of the same general causes. The remarkable force inherent in the globe, known as terrestrial magnetism, which gives a determinate direction to a freely suspended magnetic needle, and is of inestimable value to man, has long been the subject of observation and study. It is now established that there two magnetic poles, one in each hemisphere, at which the needle would point vertically upward and downward. Their position, which is not coincident with the geographical poles, is found to have varied according to some yet unknown law. The nature and mode of operation of magnetism, and the allied phenomena of electricity, continue to be subjects of speculation, no explanation of them having yet been proposed, such as that which refers heat and light to the vibrations of an elastic medium. Our knowledge of the phenomena of terrestrial magnetism, therefore, still remains in the empirical stage; they are, however, held to show

that the earth's magnetism is distributed through its mass, and that the magnetic force either wholly or mainly resides in the interior, and can not be attributed to external influences, though it may be affected by them. Precise observation has now supplied satisfactory proof that the earth's surface, with all that is on it, has been evolved through countless ages, by a process of constant change. Those features that at first sight appear most permanent, yet in detail undergo perpetual modification, under the operation of forces which are inherent in the materials of which the earth is made up, or are developed by its movements, and by its loss or gain of heat. Every mountain, however lofty, is being thrown down; every rock, however hard, is being worn away, and every sea, however deep, is being filled up. The destructive agencies of nature are in never ceasing activity; the erosive and dissolving power of water in its various forms, the disintegrating forces of heat and cold, the chemical modification of substances, the mechanical effects produced by winds and other agencies, the operation of vegetable and animal organisms, and the arts and contrivances of man, combine in the warfare against what is. But hand in hand with this destruction—nay, as a part of it—there is everywhere to be found corresponding reconstruction, for untiring nature immediately builds up again that which it has just thrown down. If contingents are disappearing in one direction, they are rising into fresh existence in another. Though the ocean tears down the cliffs against which it beats, the earth takes its revenge by upheaving the ocean's bed. The area of the dry land is very greatly exceeded by that which is covered with water. The whole surface of the earth being 197,000,000 square miles, about 55,000,000 are land and 142,000,000 water. The average height of the land above the sea-level is also very much less than the average depth of the seabottom below that level; so that a rearrangement of the surface is quite possible by which the whole of the land might be submerged with comparatively little distur-

bance of the present level of the sea, or reduction of its average depth. From a careful computation recently made, it would appear that the mean height of the surface of the land above the sea-level is about 2,250 feet; the continental areas having the following elevations: Europe, 939 feet; Asia, 3,072 feet; North America, 1,888 feet; South America, 2,078 feet; Australia, 805 feet. The greatest depth measured in the ocean exceeds 27,000 feet, and it has been estimated that the mean depth is about 12,500 feet. About 5 per cent. of the ocean area is less than 600 feet in depth, and a somewhat smaller proportion, more than 18,000 feet. About 17 per cent. is less than 3,000 feet. Among the influences which give to the earth the characteristics that most immediately affect its fitness for occupation by man and the support of life generally, those due to the atmosphere are, without doubt, the most prominent. These under the designation of climate, are constantly affecting us. But of all recognized branches of science, that which treats of the atmosphere—meteorology—is at the present time certainly the most backward. The inequalities of the earth's surface, which are insignificant when viewed in relation to the whole globe, are of the greatest importance in relation to the atmosphere. For, owing to the laws of elastic fluids, the great mass of the air and of the watery vapor it contains are concentrated very near the surface. One-fourth of the air and one-half of the vapor are found below 8,000 feet from the sea-level; one-half of the air and nine-tenths of the vapor are below 19,000 feet; which hardly exceeds the average elevation of the highest ranges of the Himalya Mountains; while three-fourths of the air and virtually the whole effective vapor lie below 30,000 feet, and therefore within the influence of the highest summits of those mountains. That portion of the atmosphere which is nearest the surface is manifestly the most likely to be acted upon by irregularities of relief, and by local variations in the power of absorbing or radiating heat or diffusing vapor.

Hence it is certain that it is the movements of the lower strata of the atmosphere that chiefly affect all conditions of climate, though no doubt there are great movements in the upper regions to bring about the restoration of equilibrium, which is constantly disturbed from below. The great activity of the air in discharging the functions of equalizing temperature and distributing moisture over the earth is remarkable. If the whole quantity of moisture in the air at any moment were condensed so as to leave it absolutely dry, the resulting stratum of water if distributed evenly over the whole earth would be less than one inch in depth. Yet it is estimated (though perhaps on insufficient data) that the mean rainfall over the whole globe is not less than sixty inches in the year, and falls of ten times this amount are known to occur in some localities. A few words will indicate the magnitude of the forces which are called into silent and comparatively unobserved operation in the atmosphere by the sun's heat in the production and recondensation of aqueous vapor. It has, as I noticed, been estimated that on the average five feet of water falls annually as rain over the whole earth. Supposing that condensation takes place at an average height of 3,000 feet above the surface, the force of evaporation must be equivalent to a power capable of lifting five feet of water, over the whole surface of the globe, 3,000 feet during the year. This, not reckoning the force required for the transport of the rain in a horizontal direction, would involve lifting 322,000,000 pounds of water 3,000 feet in every minute, which would require about 300,000,000 horse-power constantly in operation.—*Richard Strachey, F. R. S.*

The Circle of the Sciences.

If I were asked what one word most thoroughly characterizes the present age, I should answer science. The number of books, pamphlets and papers sent out every year on scientific subjects of every conceivable kind is fairly bewildering; and a vast literature has already sprung

up such as no man could master in the longest life. Every newspaper has its column of more or less trustworthy scientific items. Associations for the encouragement of science are multiplying in all directions. Our universities are spending great sums of money for the building and equipment of science halls; and instruction in this department, almost totally neglected a generation or two ago, is spreading more and more widely in our colleges and public schools, so that the very boys and girls begin to chatter science. The new subject seems to be coming in like a flood, threatening to engulf the cherished landmarks and venerable institutions of our forefathers. Some conservative people, loving the good old ways, find the change startling, not to say alarming, and, if it were only possible, would make haste to dam the rising waters back within the old bounds. But science has come to stay, and not only so, but it seems destined to increase in influence from year to year, and play a still more important part in the future than in the present. There are good reasons for the popularity of science. We live in an age boastful of its progress and fond of pointing the finger at the benighted world of the ancients, or even of a hundred years ago, as far behind the times. But in what does our progress consist? Are we much more moral or devout than the early Christians? Do we display higher intellectual or artistic powers than the old Athenians? The answers to these questions will hardly be flattering to our vanity. After eighteen hundred or two thousand years we can see perhaps an advance in the average morality and intelligence of the civilized nations, but we will have to search very long before we find a modern equal for Paul or for Plato or Aristotle. In fact the advances on which we pride ourselves are chiefly those won for us by science in the material world. How much these advances mean in our civilization can hardly be estimated. The paralysis of New York after the great snow-storm last winter may give some hint of it. Imagine the world suddenly deprived of railways, steamships, telegraphs, steam-presses,

and all the thousand applications of science to the work of life in the last half or three-quarters of a century and some idea will be gained of the quiet but tremendous revolution which the world has gone through under the guidance of science. The benefits of the ancient civilization were necessarily confined to a small number of the upper classes, for they were founded on the servitude of the masses; but modern civilization should bring its blessings to all, for it is founded on the servitude of the tireless and inexhaustible forces of the universe. I have briefly touched on the material changes effected by the application of science; but with them have gone equally important, if less obvious, changes in our intellectual standpoint. Our whole way of looking at things, with reference to both this world and the next, is being revolutionized by the scientific mode of thought, to which most other lines of study are more or less consciously adjusting themselves. Science is a powerful solvent in which old ideas are very often separated into their elements and allowed to crystallize into new forms. Whether this process is always beneficial may well be questioned, for modern science in its keen, cold investigation of the material world is in some danger of neglecting the equally real spiritual world. Perhaps what has been said will serve to give some idea of the immense and ever-growing importance of this comparatively recent factor in human life, and will show how necessary a knowledge of the subject is to any one wishing to aid or even to understand the onward march of our time. Scientific men claim as the object of their investigation, nothing less than all nature, including the investigator himself. There is nothing that can be grasped with our senses and our reason which science does not hold as belonging to its legitimate territory.—*Prof. A. P. Coleman.*

A contributor to *The Writer* quotes Mr. Whittier as saying that his early ambition had been to become a prominent politician, and from this ideal he was persuaded only by the earnest appeals of his friends.

The Fall of Fiction.

It seems to be the nature of most fashions, good or bad, at last to beget their contraries, and it is to the principle or law underlying this curious but familiar fact that we are disposed to refer what would otherwise be a somewhat perplexing phenomenon in the fiction of the passing hour. For some time past the fashionable tendency has been largely in the direction of a certain conscious, not to say willful thinness of narrative material. The old merits of fullness and "body"—virtues apparently hereditary in that lineage of robust minds which can be traced backward without a break from George Eliot to Fielding—have been growing rarer and rarer. In their place the art of making a very little go a very long way has been carefully cultivated by undoubtedly dextrous hands. It has almost reached the point of sheer bravado in some developments of the "society" novel, notably a species grown in American soil, or rather in New York conservatories and forcing beds, and distinguished by an elaborate triviality which no amount of cleverness can render other than vapid. Such a fashion can never in the nature of things be long lived. Those miracles of inexhaustible nothingness, in which the tiniest rivulet of incident just trickles across a continent of dialogue, can not long be interesting, even as miracles, in an age to which the miraculous does not make a permanently successful appeal. Moreover, along with this slightness and attenuation, so unimpressive by contrast with the traditional weight and bulk of English intellectual bullion, there has been the inevitable concomitant of languor and *ennui* and enervation, and it is these which have produced at last that recurrent phenomenon in the natural history of fashions to which allusion was made in our opening sentence. For, if the immense popularity of Mr. Rider Haggard's stories has any symptomatic significance, the stage of languor has at last reached its term and is being succeeded by a frantic rebound to the opposite extreme of spasm. From elegant listlessness fiction has

suddenly leapt into paroxysmal life. From coma it has passed into convulsions. A single graphically described horror may interest us by virtue of that curious attraction in repulsion which, though morbid and questionable, is not the less a real element of power; but the cannibal in us is soon appeased, and when our mental palate has been regaled with slaughtered humanity served up in every variety of appetizing ways—speared, brained, caught in lion traps, torn in twain by elephants, and so forth—we presently become, not so much revolted and nauseated by this sort of fare, as simply *blase* and apathetic in the presence of further culinary blandishments. Some husbandry of horrors, some frugality of affrightments, is necessary, or we should learn to look upon them without a thrill. The lavishly disgusting at last ceases even to disgust and is met with mere indifference. In works of fiction, to borrow words which Dryden applies to the drama, "we know we are to be deceived, and we desire to be so; but no man ever was deceived but with a probability of truth, for who will suffer a gross lie to be fastened on him?" However true Dryden's words may have been in his own day, they seem less so in ours, when the ability to imbibe unlimited quantities of literature making enormous demands upon credulity is no uncommon gift. It might be thought that the capacities of credulity would soon be glutted by heavy aliment; but, on the contrary, they appear susceptible of infinite dilation by what they absorb. The intellect, in allowing what Dryden calls "a gross lie" to be "fastened" on it, forfeits its self-respect; but having once done so, it has nothing further to lose, and may go on permitting similar liberties to be taken with it, without much additional sense of lost dignity. There is among the very poor of our large cities a class of persons who nightly resort to the gin-shop to purchase a mixture of every known liquor, the heterogeneous rinsings of a hundred glasses. The flavor of this unnameable beverage defies imagination, but the liquor has for its lovers one transcendent virtue—

it distances all rivalry in the work of procuring swift and thorough inebriation. Its devotees would not thank you for a bottle of the finest Chateau Yquem, when the great end and aim of drinking—the being made drunk—can be reached by such an infinitely readier agency. The taste for novels like Mr. Rider Haggard's is quite as truly the craving for coarse and violent intoxicants because they coarsely and violently intoxicate. But the victims of this thirst are without the excuse which the indigent toppers to whom we liken them may plead. The poor tippler might say that he bought his unutterable beverage because he could not afford a better. But the noblest vintages of literature may be purchased as cheaply as their vilest substitutes. When we have abundance of exquisite grapes in our vineyards, is it not almost incredible that persons who pretend to some connoisseurship should be content to besot themselves with a thick, raw concoction, destitute of fragrance, destitute of sparkle, destitute of everything but the power to induce a crude inebriety of mind and a morbid state of the intellectual peptics? It is indeed almost incredible, but the pity of it is, it is true.—*The Fortnightly Review*.

Does Excitement Shorten Life?

Whoever has studied man's earthly tenure and the causes which tend to lengthen or curtail it will have scarcely failed to notice how contradictory is the evidence of those we naturally look to to explain them, and that their evidence, even when they agree, does not always accord with what would seem to be the facts, as they appear around us. One authority says general physical development is necessary to prolong life, while another insists this is not required if the day's employment does not call for physical exertion. Dr. D. B. Richardson, an eminent English authority, declares, among many obvious though scarcely novel propositions, that everything that quickens the action of the heart, any kind of excitement, taxes and reduces the storage of life. If this

were said of those naturally feeble, or inheriting disease, or even of those leading sedentary lives, and living from day to day without the invigorating benefits of fresh air and exercise, it would seem reasonable, for one does not have to be a skilful physiologist to know that excitement affects the nerves as well as the heart. But is the statement strictly true when referring, as here, to the entire human family? Surely soldiers engaged in actual warfare and sailors in peace as well as war live among excitements, besides being notoriously addicted to indulgences as to drinking and smoking, yet are they long-lived? Statistics show it and observations corroborate them. The pension list of the British army, giving the ages of the beneficiaries, men who have served in all climates for from twenty to forty years, and excluding those pensioned sooner because of "wounds received while in the performance of duty," shows that soldiers do not die as other men do; so it is with the naval pensioners of the Greenwich Hospital, now scattered over Great Britain, because of its abolishment. In the merchant service to-day it is no uncommon thing to find a man seventy years old in charge of a vessel—a post requiring activity of body as well as of mind. Here in New York we have the proof near us, for at Sailors' Sunn Harbor, on Staten Island, are eight hundred aged but for the most part hearty sailors. Most of these are between seventy and eighty; active old fellows they are, with clear minds and good appetites. They will tell you they are not by any means the sole survivors of our one time merchant fleet; that many, if not most, of their mates are yet living, but distributed over the country, living with their grandchildren, perhaps wherrying for a living or engaged in other employments along a water front. From this it would appear that a sound human body can withstand hunger and exposure and even frequent excitement, if only there is plenty of fresh air and exercise of a vigorous kind thrown in.—*Scientific American*.

There are 2,750 languages.

Force of Character.

There are two essential elements of force of character—self-control and a spirit of fairness. No man can be really strong who has not learned to control himself. He can not master others, except in a brutal or dishonest way, until he has first mastered, not merely learned how to conceal, his own temper. In fact the bully or any other pretender rarely ever attains permanently a position in life which belongs to real merit. He is oftener seen in subordinate positions, and is recognized by his propensity to give instead of take directions, to complain when in some exigency more is required of him than usual; to criticize when he can not shirk, and to impose in various other ways upon those around him. Nor can his influence be of a lasting kind unless he is disposed to be fair and honest in dealing with antagonists. He may have these qualities and yet be without force of character; but having them, he is possessed of two of the primary elements that make up the leader or ruler of men. Contrary to general belief, then, the man of real force is never a bully, is never arbitrary or unjust, is never passionate, though he may be and generally is aggressive, and may, as occasion requires, give exhibitions of temper that is, nevertheless, kept in perfect control. Force of character brings with it self-reliance and an imperturbable manner. Just as the really courageous man remains cool in the presence of danger, the self-reliant man keeps his temper under provocation because he feels confidence in himself. The coward grows excited and loud-mouthed to conceal his real feelings. The arbitrary man, accustomed to force his views upon others, loses confidence in and control of himself when he fails to make his usual impression. It is at such a moment that real force of character begins to tell; it is then that the self-contained and self-respecting man dictates his terms and asserts his power. But it is then also that he must exercise that forbearance which comes of honest purpose and a spirit of fairness if he must retain his

ascendency, for reason must approve the terms of peace, else there will be repeated revolts. The consideration of what is the true and what is the misleading sign of force of character is of advantage not only in enabling one to put a just estimate upon men, but because all of us conscientiously or unconscientiously adopt types which we seek to imitate, and it behooves us not to make the mistake of following a bully instead of a brave man, of looking up to the overbearing instead of those who are just, self-reliant, persistent, and whose force of character is shown not by the way in which they trample upon other people, and ignore the rights and opinions, but by their manner of obtaining ascendancy through the constant exercise of justice, reason, firmness, and self-control.—*Baltimore Sun*.

SPEAKING of the baneful effects of indiscriminate novel-reading, the *Christian At Work* says: "As for the sensation, unreal, ill-starred, distorted extravaganzas with their sham heroism, or those others with their effluvial scandals, fostering that habit of novel-reading which leads to fatty degeneration of the mind, just as dram-drinking tends to fatty degeneration of the heart—banish it all from the home and keep it out. There are four great evils of to-day which are sapping our sociological life, and not the least of these is the craze and the curse of intemperate, indiscriminate novel-reading."

THE fifteen great American inventions of world-wide adoption are: 1. The cotton-gin; 2. The planting-machine; 3. The grass-mower and reaper; 4. The rotary printing-press; 5. Navigation by steam; 6. Hot-air engine; 7. The sewing machine; 8. The india-rubber industry; 9. The machine manufacture of horseshoes; 10. The sandblast for carving; 11. The gauge-lathe; 12. The grain-elevator; 13. Artificial ice-making on a large scale; 14. The electric magnet and its practical application; 15. The telephone.

A Dream.

Editor Review:—I have thought you might be interested in a recent dream of mine. I will relate it to you as best I can. I dreamed that after an absence of two years I visited the dear old Normal at California. It was at commencement, 1889. Crowds of people were there. The trains landed hundreds of people, not at the regular station away down town, but at the corner of the campus, at a special flag station called "Normal." Excursion rates were given, so I dreamed, to attend the commencement exercises. Strange to say, the campus, which always presented a high bank to the view of passengers, had been beautifully graded down, almost to the level of the track, and a neat iron fence not more than three feet high inclosed the campus on the railroad side; so that the view of the grounds and buildings from passing trains was all that could be desired.

I was told that the Normal School grounds had become the most attractive spot on the Monongahela river, and that travelers invariably took a position on trains and boats where they could get a view of the campus. They never failed to exclaim, "Isn't that lovely!" "What a delightful place to attend school!" Entering the buildings, what was my astonishment to see the most unlooked for changes! The time honored pump had fallen into "innocuous desuetude" and sparkling spring water was flowing abundantly on every floor. Along the 150-foot corridor of the main building was spread a broad matting, from end to end. Large additions of books had been made to the library; and the walls of most of the recitation rooms were covered with splendid exhibits of school work prepared by students. I dreamed that a class of thirty-six were receiving their diplomas, and that the incoming Senior class numbered just *Twice Thirty-six*.

I fear I have wearied you with the details of my dream, and yet I have only told you half.

Respectfully yours,

AMICUS.

[If "Amicus" will only possess

his soul in patience he may realize all he has dreamed—and more.—Ed.]

Ladylike, or Not?

In our literary society we have some very strict ladies who think it is not ladylike to take part in a debate—not even in a miscellaneous debate. In this enlightened day of the world, when young ladies who are teachers are expected to stand in an assembly of teachers and school patrons, in a district institute, in prayer meetings and church associations, to speak their minds, is it right to learn self command by practice in speaking in society, or is it not? STUDENT.

THE Lawrence county teachers write to the students at the Normal that Dr. Noss's work at the New Castle institute was enthusiastically received. His instructions were such as are of practical use to teachers.

PRINCIPAL NOSS visited the Allegheny county institute Nov. 15 and made a short address. He says it was an inspiration to see the large numbers of California Normal students now teaching in Allegheny county. They are making themselves felt among their fellow teachers. One of them, principal J. C. Kendall, has been twice elected a member of the committee on permanent certificates.

A SPECIAL circular announcing the work of next spring term has been prepared. A copy will be sent to any address. Will every reader of the REVIEW, who knows of a teacher who may be interested, be kind enough to send his address on a postal card. We are pleased to notice the growing zeal of former students for the Normal. The school is being helped by the good words and the good works of its students.

THERE is no better paper for young people than "*The Youth's Companion*." We would call attention to the Special Offer of the publishers, an opportunity which comes but once a year. Any new subscriber to *The Companion* who

will send \$1.75 at once, can have the paper free to January 1, 1889, and for a full year from that date. This offer includes four holiday numbers, for Thanksgiving, Christmas, New Year's and Easter, all the Illustrated Weekly Supplements, and the Annual Premium List with 500 illustrations. Address THE YOUTH'S COMPANION, Boston, Mass.

ALREADY the requests for rooms for the spring term are beginning to come in. The term will exceed all former ones both in attendance and interest. Word comes that from one neighborhood in Fayette county at least twelve students will attend in addition to the three or four now in attendance from the same place.

THE Washington county institute was a great success. The Opera House was full to overflowing at every session. Good order prevailed, close attention was given, and the instruction was in large measure, appropriate and able.

DR. C. L. PARKHILL, '79, professor of anatomy in Gross Medical College, Denver, Col., writes that he likes the REVIEW because it gives him the gossip concerning his old Normal friends. "My love of teaching," he says, "which I imbibed at the old S. W. S. N., has never left me. The subject I now teach is very different from those of which the REVIEW treats; but the principles of teaching are the same."

MR. GEO. DARSIE a former student, and Mr. Fred W. Schrouz, class of '82, are now students at Bethany college. Both were at the Reunion of California students at the Washington institute, Nov. 22.

THE Puritans were so religious that when they first landed they fell on their knees, and then on the aborigines.

MISS LIZZIE McCLAIN, a former student, was married Oct. 3, to Mr. R. S. Todd, of Rostraver, Pa. *Un bon voyage*.

MISS BLANCHE ROBB, a last term student, has accepted a position as teacher in a school near her home, Hillview, Pa.

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destitute of fragrance, destitute of sparkle, destitute of everything but the power to induce a crude inebriety of mind and a morbid state of the intellectual faculties. It is in