

# The Normal Review.

VOL. VII. No. 7.

CALIFORNIA, PA., MARCH, 1892.

50 CENTS A YEAR.

Entered as second-class matter.

Fulton Phillips was elected school director at McDonald last month.

Arrangements have been made for a lecture by Miss Krarer, the noted Esquimaux lady lecturer, some time in April.

Dr. Noss was absent several days last month attending the meeting of the National Superintendent's Association in Brooklyn.

J. R. McCollum, '83, is principal of the schools of Clarion, Iowa, and editor of an excellent educational journal, the Wright County Teacher.

An institute at Ohio Pyle, Feb. 15th, was ably addressed by Thos. R. Wakefield and W. C. McKean of Uniontown, and Will R. Martin, of Ursina.

Washington's Birthday was observed as a holiday, and a period on the following Wednesday was devoted to exercises in the chapel, literary and musical, in observance of the occasion.

Messrs. John L. Gans, C. E., M. E. and E. E., and J. C. Long, C. E. and M. E., have formed a partnership under the name of Gans & Long, with their office in Connellsville, Pa.

Soon will our buildings be overflowing with the crowd of new students which the spring term always brings. And from present indications the crowd will be larger than ever this spring.

It is a question in Fayette county which are most numerous, candidates for District Attorney or for

County Superintendent. Graduates of the Normal appear to form the majority in both crowds.

A week's course of lectures by Prof. DeMotte, the most entertaining and instructive scientific lecturer on the American platform, will be among the attractions of the spring term. They will be given some time in May.

At a flag presentation by the O. U. A. M. to the schools of East Pike Run township, addresses were made by W. I. Berryman, '83, Prof. Meese, of the faculty, and L. W. Colebank and T. P. Sloan of the Senior class.

At an institute held near Brownsville, March 5th under the charge of J. L. Bowman and Edgar Brashear, the graduates of the Normal on the programme were Messrs. McCullough, Brightwell, Jamison, Johnson, Crow, C. L. Smith, and I. L. Smith. Several members of the Senior class and other students were present.

Will H. Martin, 91, principal of the schools of Ursina, will teach a normal at that place the coming season. The "Genius" says of him: His school at that place is said by the patrons to be a most excellent one, and the fact that they have prevailed on him to conduct a Normal there is sufficient endorsement.

It has been authoritatively announced that the new building will be ready for the spring term, and Thursday evening, March 31st, has been set as the time of the dedication. It is expected that a number

of distinguished educators and friends of the school will be present, and that the occasion will be a highly interesting one.

Alumni, come and join the post-graduate class next term; room for all, and a very inviting programme to be followed: Pedagogy, methods, literature, science in the new building, Latin and Greek, all the treasures of the library and reading room and all the opportunities for observation in the Normal and Model departments, and no spectre of an examination at the end of the term ever rising to mar your enjoyment of it all; doesn't it make your mouth water to think of it? Come and realize it.

A large number of the students and teachers of the Normal attended an institute held in West Brownsville on Feb. 27th, by the principal, Wilmot Collins, '83, and his assistants, Anna B. Kinder '89, Ethel W. Danley, '87, and Bernette McDonough, '87. The institute was addressed by Profs. Noss, Chubb, Hall and Bryan, and Mrs. Noss of the Normal faculty, and recitations and music were furnished by Misses Sadie Lilley, Romaine Billingsley, Lucy Morris, Jenne Singer, and others. At the noon hour the institute adjourned to the school hall, where a sumptuous repast, provided by the patrons of the school, was thoroughly enjoyed by all.

Miss Sadie Thomas, '90, of Webster, has a short article in a recent number of the Popular Educator.

## EDITORIAL.

Arbor Day will soon be here, and it is hoped that broad-minded teachers will take the lead in planting trees, in beautifying school grounds, and in other work for which the day is set apart. We do not undervalue the moral influence of the customary rhetorical exercises, but we may be allowed to remind our readers that getting the roots of trees, shrubs and smaller plants into mellow, rich earth must also be done. A very beautiful literary programme may be prepared, and should be carefully followed by teachers and their schools; but this must not be so elaborate as to crowd out the main thing—the use of spade and hoe. Trees will grow without songs, poems or proclamations, but you know Arbor Day would be sadly incomplete without them.

The National Association of Education will hold its annual meeting at Saratoga, N. Y., July 12-16.

The Ohio State Teachers' Association will meet in Cleveland, June 28-30.

Teachers should make an effort to attend the educational gatherings of their own State at least, and should encourage the work of the association by becoming a member whether they are able to attend or not. The membership fee usually includes a copy of the proceedings, which is of more value than the outlay.

The Department of Superintendence of the National Association met in Brooklyn, N. Y., February 16-18. Superintendent L. W. Day, of Cleveland, O., delivered an address in memory of the late John

Hancock, School Commissioner of Ohio. One of the topics discussed was, "The Health of School Children as Affected by School Buildings." Librarian W. H. Brett presented a paper entitled "The Relations of the Public Library to Schools and Workingmen."

At a meeting of prominent educators, held in the city of Cleveland, O., President Cady Staley, of Case School of Applied Science, gave a short address on "Some of the Acquirements of a Successful Teacher." He held the opinion that first of all the teacher must be possessed of *unblemished character*, and maintained that on the principle of "As a man thinketh in his heart, so is he," what a teacher *is* he teaches, whether he wishes to or not. The next point considered was the training; a teacher must be *well educated for his position*. The teacher's qualifications must be many in this regard, for a pupil soon loses his respect for a teacher who is not sure of what he knows, or does not know. Still another step was the *teaching gift*, without which all other attributes avail nothing. President Staley commended the work of Normal Training schools, and was most emphatic in his demand for teachers thus qualified for work in the schools of to-day. The last point, or suggestion was to avoid *too* many rules; a teacher must preserve order without seeming to do so. No school must have the appearance of being conducted for the sake of discipline. This important part of our schools depends largely upon the interest in the work which is excited in the pupils.

Another of Ohio's gifted sons has been taken from the scene of his earthly labors. Professor Thos.

W. Harvey, of Painesville, Ohio, died January 20. The N. E. O. T. A. held February 13, make this record of a man: "Thomas W. Harvey was one of the founders of this organization, its first and for several successive years its president, and his earnest membership ceased only with his life. For more than a third of a century he stood in the front ranks of those who were laboring for the elevation of humanity through the instrumentality of the public schools; as State Commissioner, Institute instructor, educational writer, teacher, nobly he did his part. Though his life had this wide margin we are proud that he was pre-eminently a schoolmaster and one of us. His life was gentle, his judgment was well poised, his affections were warm, his hand was ever extended in helpfulness to the struggling, in earnest greeting and congratulation to those who had in some measure achieved success. But he is gone. No more shall we look upon that genial face, the good, gray head which we all honored. His place in our meetings and in our hearts shall not be filled but kept sacred to his memory, and we mourn our loss. But while death has robbed us our confidence abides that he has gained whatever good things await 'Him who cares not to be great, but as he saves and serves.' We sympathize with his sorrowing family in this time of affliction, and pray that to them help may come from the only true source. May we, his associates who loved and honored him, catch his spirit, learn his language and make him our pattern."

A teacher should not only be familiar with the ground to be covered in his own line of work, but should be acquainted with all adjacent territory.

No one study stands alone.

Never threaten a pupil with a specified punishment for an offence. The known is not dreaded; it is the unknown which is full of horrors.

J. M. Greenwood of Kansas City, has the following trite remarks on school discipline, which are well worth heeding:

"The teacher controls more with the eye than with the voice. The habit many teachers have of standing with their backs to their pupils is a bid to the children to engage in disorderly conduct. If a teacher *must* put work upon the board during school-time, such a position should be taken as will give him a clear view of the entire room. It is the old story "of one eye on the pot, and the other up the chimney." Prevention in infinitesimal doses at the right time, is worth tons of cure. In the midst of a recitation the teacher observes two pupils earnestly engaged in conversation. Not wishing to disturb other pupils, the teacher moves quietly and apparently without purpose near where the two are sitting, and without saying a word they become painfully aware of her presence. A steady look at the right time and in the right direction, will be sufficient to repress tendencies to disorder. But how not to do it, is as important as the other side. The teacher sees John whispering, and says: "John, are you whispering?" John replies: "No'm," a full-fledged bid for lying."

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#### Reserved Power.

BY W. J. CRAWFORD, A. M., PRINCIPAL ALBANY PUBLIC SCHOOLS.

Every application of mechanics has its maximum of capacity for doing work. Even iron and steel have a limit of strength. Within this limit of strength on the one hand and of capacity in the other, there is an equation of reserved power. This is variable, and is always in direct proportion to the actual amount of work to be done. You and I are very much like a delicately constructed machine. We are capable of doing a vast amount of work, but beyond the limit of strength there can be no effectual work done. We lose our capacity; things go wrong, and we become discouraged. The per-

sonal equation is an important factor of success. No man can afford to reduce this equation to a minimum. The fact is, very few teachers can long endure the mental, moral and physical strain of maximum effort. Some teachers instead of accumulating strength, are constantly losing their powers and lessening their chances of success. Let me explain. If the teacher is hearing a class, he talks loud and at a rapid rate. He lessens his power of instruction. He tells too much. If a slight difficulty occurs in government, he lets loose all his powers of vengeance upon some thoughtless lad, never once thinking that the next breach of conduct will require just as much correction. It is needless to say that in the latter case the miscreant gains a victory. It is not a drawn contest, like Antietam; it is like a Waterloo the whole school against the teacher. What would you think of an engineer who attempts to draw a train of forty cars without a safety-valve on his engine? He may fire up with all his might, but does not get steam enough to move a wheel. He is either beside himself or he knows nothing about his engine. The application is plain. Keep a check upon your words and actions. Say less than you are able to say. Let your punishments be less than they might be. Impress your pupils that you have reserve forces enough to carry your point triumphantly. It was Nasby who said, "I am not as eloquent in any one place as I can be, out of respect for Patrick Henry." It is the secret of oratory, that the speaker keep a certain amount of reserved force, which may be seen in the distance by the hearer. The storm is preceded by a gentle breeze, which, in intensity, grows constantly stronger. In individual action it is the royal power that moves others to action. It was the Great Teacher who said he had twelve legions of angels at his command to prevent his arrest. So, it is not necessary that you and I suffer defeat a dozen times a day in the school room. We sometimes fight the great battles,

but let the lesser engagements pass by unnoticed. This is a source of weakness, and has a tendency to draw off our reserved power. It is a proverb that very small leaks sink great ships. It is too often the little things, which the inexperience wink at, that lessens the power of control and leads the way to complete failure. Let us remember that success is ours, if we work up to the normal strength and keep constantly at hand a large store of reserved power.—*State School Journal*.

The liberally educated man, according to a recent writer upon the subject, possesses five intellectual powers:

First—The power of concentration.

Second—The power of distribution.

Third—The power of retention.

Fourth—The power of expression.

Fifth—The power of judging.

Also, Knowledge:

First—Knowledge of his own physical nature.

Second—Knowledge of his own tongue.

Third—Knowledge of modern tongues.

Fourth—Knowledge of scientific inquiry.

Fifth—Knowledge of the great literature of the world.

J. M. Greenwood of Kansas City, says: "Let the teacher decide what kind of ideal he shall set before his pupils, and how he would have them reach it. It should not be impossible character, but one that is full of goodness, gentleness, sweetness, purity, dignity and well-rounded out—a character fully within reach of every one who will strive to attain it. Habits strong and deep, will thus become fixed, and the pupils will absorb the good, the noble, the true and the pure, from the teacher whose life is worth imitating."

Fifty per cent. of the books taken for perusal from the public libraries of Paris, London and New York are works of fiction.

### The Greatest Canal in the World.

The greatest ship canal in the world, measured by the tonnage passing through it, is on American soil. Few Americans realize this, as few of us at any time or on any subject realize that so far as mere material expansion goes we lead the world. No nation approaches us, save England, in iron and coal. In any one of the world's great staple products a third or more of the world's product will generally be found to be produced by the United States. The Sault Ste. Marie canal in 1891 passed, according to the report just made, 9,744 registered craft, or registered and unregistered together, 10,191. The former carried 8,888,759 tons. But for the low stage of water, the late opening of navigation, and the sinking of a steamer in the canal the tonnage would have reached 10,500,000 tons. The actual figures are already and have been for several years past in advance of those of the Suez canal. The Sault Ste. Marie has now for two years handled over 700,000 more tons yearly. Its increase for some years on the Suez canal has been small, and the excess of tonnage handled by the Sault canal in 1891 was probably at least 1,000,000 tons.

In the value of its freight the Suez canal is undoubtedly far in advance of the Sault.

The difference between the two canals in the value of their tonnage is, of course, due to the widely different character of the freights. One-half of the Sault freight was iron ore. The rest of its freight was grain, lumber and copper. The Suez canal carries the silks, spices, teas and coffees of the East. The growth of the Sault has, as will be seen, been far more rapid than that of the Suez canal. Up to 1881 the Sault was a State canal, and in that year the new United States lock was opened. The tonnage in 1889 was 1,750,000 tons. In five years it had nearly doubled, and in five years more it has again nearly doubled. The Suez carried 435,911 tons in

1870, its first year; it trebled its tonnage by 1872, reaching 1,439,169 tons. In 1875 its tonnage had doubled; by 1880, it had doubled again, and the advance in ten years since has been about one-third.—*Philadelphia Press*.

### Some Historical Canals.

The canal is an ancient institution. It co-exists with the remotest periods of human history, since the primitive man discovered the value of an artificial waterway across a peninsula, or from one remote stream to the navigable waters of another. Historians allude to these artificial channels as existing in Egypt and elsewhere in the far away centuries preceding the Christian era. In the year 1829 the Chinese completed an imperial canal that traversed a distance of 1,000 miles, a forty days' sail for the Mongolian junk. In 1681 the famous Languedoc Canal was completed. This gave France an artificial waterway, 148 miles in length, with a summit level of 600 feet above the sea, and including upwards of 100 locks and fifty aqueducts. In Great Britain Roman spades dug the first canal, one or more of which are holding water to-day. The canals of the United Kingdom now exceed 47,000 miles in length and are among the best of their kind in the world. The Manchester Canal, now in course of construction, will, when completed, be a masterpiece of enterprise and engineering skill, and will place the Manchester manufacturer in direct and unbroken communication with the ocean. The North Holland Canal was completed in 1822 and is fifty miles in length. The Amsterdam and other artificial waterways are among the most vital auxiliaries of Dutch commerce and prosperity. The Suez Canal, which, up to the date of its completion was the most stupendous undertaking of its kind in modern history, extends from Port Said on the Mediterranean to Suez on the Red Sea, the whole length of navigation being eighty-eight geographical miles.

This trans-Egyptian waterway is navigable by steamers 400 feet in length and fifty feet beam; the cost of this gigantic enterprise, including its harbors, being about \$100,000,000. In the Western hemisphere, both in the United States and the Canadas, the inland canal has long been an economic necessity, and in the Erie and the Welland, etc., we have examples of their service. In a strictly national sense we have the magnificent mistake of Panama, with its big holes and insolvent stockholders. At Nicaragua, American enterprise is already at work. The importance of this canal to the United States and to other commercial nations, as a route between the Atlantic and Pacific, is probably beyond any present calculation, and is of so undeniable a value that, be the engineering difficulties what they may, the consummation of the idea is among the historic certainties of the future.

### WORLD'S FAIR NEWS.

#### THE PROGRESS AND PROSPECTS OF THE EXPOSITION.

It would be rather a difficult task at present for the most casual or careless observer in any civilized country on earth to avoid seeing that humanity is becoming greatly interested in the World's Columbian Exposition, to be held in Chicago in 1893. It would be more difficult still for Americans, who are watching the development of plans and the general work of preparation for the event with patriotic interest, to avoid seeing that the progress made during the past few months has been rapid, substantial and inspiring. Conjecture has given way to assurance.

Very naturally the co-operation of foreign countries, and especially of the older nations, has been deemed essential to the success of the undertaking, even by those who are strongly of the belief that a purely American Exposition is possible, and that, left to our own resources as a people, we could make a display in every line of pro-

gress that would hardly be second to any the world has ever seen. The Commission recently dispatched to Europe for the purpose of representing the World's Columbian Exposition, has not only been well received, but has met with a reception in the countries visited that guarantees their cooperation, and demonstrates that the governments which they have approached are fully alive to the importance of making displays that will be both representative and creditable. We may look forward to a very general awakening of interest throughout the world in the Chicago Exposition from this time on.

In Spanish America it is hard to conceive how a more genuine or a more general interest could be felt by governments and people. Each one of the South American republics will be represented at the Exposition in 1895, and our nearest neighbor, the Republic of Mexico, will unquestionably make the best showing it has ever made before a foreign audience.

A point of importance in connection with our foreign exhibits should not be overlooked. There will be a rivalry between the nations, and one that must redound to the advantage of the Exposition. It is felt abroad that to make a favorable showing against American products Europe must do her best. An effort will be made, by the introduction of object lessons, to convince us that our commercial policy of semi-exclusion, as exemplified in our tariff laws, is all wrong. We, as Americans, are perfectly willing that Europe shall show us what she has been able to accomplish under a different policy, and some of us, at least, are open to conviction. Such object lessons, showing, as they must, what European skill and industry have been able to produce under various systems, which we have been taught to regard with suspicion, disfavor or positive prejudice, must have the effect at any rate of broadening our views if they fail to change our convictions.

The states of the American

Union are, also with very few exceptions, fully alive to the importance of the Exposition. Those states which up to the present time have been slow in movement, will undoubtedly make haste during the next few months to occupy the places assigned them. The feeling in New York is strongly in favor of a much greater outlay on the part of that state than was contemplated last year. The press and public appear to have become convinced at last that Chicago will not suffer the Exposition to fall below the greatest triumph of the kind of which we now have knowledge.

The work of preparation on the Exposition grounds is being pushed forward night and day. The Exposition buildings will be ready for the reception of exhibits before the allotted time expires. In design, construction and finish these buildings will be superior to any that have ever been erected for Exposition purposes.

The enthusiasm which marked the early period of the Exposition movement in Chicago has by no means diminished, but the anxiety of a year ago has passed away, and perfect confidence appears to have taken its place.

The Exposition has, during the past few months particularly, assumed shape and prominence in the minds of the people at home and abroad, and no matter how great the anticipations of those who visit it may be, their fondest expectations will be realized. It will be the greatest Exposition of modern times.

#### Co-Education.

DORA M'LEAN.

Co-education is the training together of the physical, mental and moral powers of the sexes. The reasons why boys and girls should be educated together are: it is the natural order of things; they are together in the family in the relation of brother and sister. Up to a certain degree the education of all young persons ought to be the same, for the end in all cases is to train them up to be intelligent, vir-

tuos and active men and women, capable of turning their talents to be of profit in whatever situation they may be placed. Not only the mind is to be educated but the heart also, for the development of character is the highest end of education and the only basis of true American citizenship. The women always have constituted and do constitute the greater part of the citizens.

In the co-education of the sexes in school there is secured greater economy in instruction, better discipline, more natural and therefore more healthful, intellectual, moral and æsthetic development for both boys and girls. The mingling of the sexes in the school room checks the tendencies, both to romantic fancies and over-wrought and unreal imaginings engendered by attending separate schools; and this it does by substituting for such illusions the every-day commonplace reality of mutual rivalry in a common labor. Thus each form a correct and sensible judgment of the other. They learn that they are alike in their natures, that they possess about the same intellectual ability, with everything yet to learn.

The value to boys of a course of special training is conceded. No one questions that a thorough technical training is of the greatest value to young men. Why should not the females be educated along with the males in every line? Would woman be less womanly if her knowledge of the human constitution and the laws of health made her competent to prescribe in the sick room as well as to act in the subordinate capacity of a nurse?

Would it detract from her worth, if her scientific knowledge were so thorough that she could be the practical chemist instead of simply assisting in the office as a copyist or correspondent? If instead of standing at the printer's case and seating type, she were able to fill the position of foreman in the job room?

There are certain learned professions which should be largely filled by women. The special fitness of women for the profession of teaching has been recognized.

## Outside Reading! Book Lists Again.

MINNE CAROLINE CLARK, SOMERVILLE, MASS.

This outline fails to suggest the various methods by which it is administered. As I believe that each character to its own shall come, through the breadth and depth reading good books or good people, so I believe that in his own way, each teacher must acquire methods peculiar to himself, of which no *penitencia* may be set down accurately.

The only true method is the never-failing, hardly-won method of inspiration—a flash light, instead of tallow dips.

The teacher, though he feel his own soul reflected in the broad universal atmosphere, must seek to prove that "love stoops as proudly as it soars." To enlist sympathy is the chief aim.

The biographies of certain men and women as discussed in our text-books stand for a series of hard facts. But the life of Swift or Steele, or Chatterton may be so treated as to leave a lesson of charity and tenderness; a reverence for what was good, and an aversion to the degrading. What a chance for the lover of Goldsmith, for the admirer of poetry, for the political economist does "The Deserted Village" offer! What pathos and patriotism abound in the stories of "Rodman, the Keeper," "My Hunt After the Captain," "The Man Without a Country."

A way to Parkman's fascinating pages may be opened by reading to the close a chapter from Miss Wilson's "Anne," "Lake Sketches," or from Cable's stories of the mixed New Orleans races. While I read in the latter of man's injustice and cruelty, the heart of the hardest boy softens towards the abused, long-suffering brother of "Tit Fuire, the Leper," I would advise and help pupils to grow to a book. If duly encouraged, they will try. A girl who said she could not read "Ivanhoe" before studying the history of

English language," afterwards wrote a very clear account of the most interesting parts, stating her pleasure therein; a boy who tried twice in one year to see into "Hypatia," this year reports: "It's fine! I see through it." Some people may claim that reading in this broad way does not lead to concentration.

Concentration is often degraded into narrowness. Besides, if he hasn't learned at home, the pupil must learn in the class-room how, as well as what, to read. The boy who read "Hypatia" has gained in generalization as well as in concentration. Analysis, according to knowledge, is my rule. Many times I must be content to know that the pupil has chosen a fine passage—a sound, sweet thought, without pressing him as to his reason for taste.

Rich instincts flourish none the better for being pulled up by the roots. How far shall we overcome the reserve that, in latter years, may teach us to be ashamed of our best feelings?

I know of no more charming trait in girl or boy than a pretty unconsciousness, perhaps oftenest seen in literature, which draws from the ingenuous mind most curious child notions.

It is a mistake even in older classes to keep to lofty thought and abstractions. Leave Milton's warring hosts and come down to the application of these high themes on the daily contests with self and the world.

Sometimes we long for a story of a boy, not so well kept as Tom Brown—one with ragged shoes with a soul above them like Lincoln or Burns.

If nature can produce anything so ponderable as a tree by entrusting its germ to a delicate-winged seed vessel, we may believe that a strong, deep thought may grow up from some simple story, "Laddie," or "Rab and His Friends," for example. Still, there must be heavy thoughts beyond the present understanding; an idea memorized may remain a seeming clod for a long time. Suddenly some hard hit in life may

smite this sparkling glode of thought and reveal to the possessor its inner beauty and value.

This is the growing, glorious 100 per cent. which we shall not see, and shall not mark. No doubt our rating of studies would be changed, if we could guess at either present or future values. If all depends upon character, the suggestiveness of the teacher, teach the boys and girls that they are to you, more interesting than Miss Alcott's "Jo's Boys," and "Little Women," and you will see them draw up to a new unconscious dignity. Teach them that the lost art of pleasing and conversing comes from gracious instincts and an exact use of our mother tongue. Teach them to dare to walk under the stars, and ask of their own naked souls, what success in life means.

If I have dwelt longer on the tone of teaching than upon its methods, it is from no lack of interest in the latter.

If in man you have never felt the lack suggested by this:

"A primrose on the river's brim,  
A yellow primrose, was to him—  
And it was nothing more."

If in woman, you have never realized the beauty and force of these lines:

"The stars of midnight shall be dear to  
her,  
And she shall lean her ear in every secret  
place,  
And music born of murmuring sound  
Shall pass into her face."

Then, I shall not meet your approbation. Visionary, is it? Yes; but remember the wisest king of old, and the seer of our modern day, say, "Where there is no vision, the people perish."

The following complete course of reading has been adopted by the teacher of Oceana county, Michigan. This is a step in the right direction. We can but hope the plan may be successfully carried out:

### SECOND GRADE.

Little Folks of Other Lands.  
Stories for Young Children.  
Grandfather's Stories.

## THIRD GRADE.

Seaside and Wayside.  
Nature Readers.  
Stories of Industry.  
History Stories.

## FOURTH GRADE.

History Stories.  
Stories of Heroic Deeds.  
Little Lord Fauntleroy.  
Black Beauty.  
Little Men.  
Little Women.  
How Success is Won.  
Flyers and Creepers.

## FIFTH GRADE.

Am. Authors for Young Folks.  
The Eight Cousins.  
The Story of Liberty.  
Uncle Tom's Cabin.

## SIXTH GRADE.

Ben-Hur.  
Old Times in the Colonies.  
Bryant's Poems.  
David Copperfield.  
Will Carlton's Farm Ballads.  
Without a Home.

## SEVENTH GRADE.

Building the Nation.  
Old Curiosity Shop.  
Merchant of Venice.  
Whittier's Poems.  
Green's History of England  
Daryll Gap.

## EIGHTH GRADE.

Lights of Two Centuries.  
Barriers Burned Away.  
Othello.  
Julius Cæsar.  
Thaddeus of Warsaw.  
Nicholas Nickleby.  
The Greatest Thing in the World.

The great difference between the savage and the civilized man is that the latter uses the seven hand-tools. They are the ax, the saw, the plane, the hammer, the square, the chisel and the file. The tools of the savage are his canoe, fishing net, bow and arrows. The wealth of a nation depends upon its skill in the use of tools. Steam is the principal tool of modern times. The hand is the instrument of power, for it wields the mechanical forces.

## A Bird's-Eye View of Korea.

In the last ten years a comparatively small nation, situated between two powerful and rival countries—China and Japan—has discarded the policy of isolation and taken active steps in asserting its sovereignty and its independence of China, and has formed intimate relations with the United States and the leading powers of Europe. Korea is the nation referred to, and the following is a summary of some of the principal facts relating to it:

Korea is an Asiatic kingdom, mainly consisting of a peninsula situated to the northeast of China, and lying between 33 and 43 degrees north latitude, and 124 and 130 east longitude. Its length is 600 miles, from north to south, and its width 133 miles from east to west. It contains 85,000 square miles and its population is 10,518,937. Its coast line is 1,700 miles long. The Koreans call the country Cho-sen, which means "morning calm." The peninsula consists of a large chain of mountains extending north and south, which makes the eastern part of Korea a ridge and the western part of the country a slope.

The principal rivers are the Tumen and the Yalu on the north, dividing Korea from China and Russia; the Han and the Tatoug, Kim and the Nak-tong. The capital is Hangyang, or Scoul, with 200,000 inhabitants. The climate of Korea is extremely varied. That of the northern parts, in which there are many mountains and considerable ice and snow, resembles the climate of British America, while the climate of the southern parts of the country is similar to that of North and South Carolina. The flora and fauna of Korea resemble that of both sub-tropical and glacial countries. Barley is the only grain grown in the northern portions of Korea; in the southern portions the soil is quite fertile, and there rice, wheat, cotton, hemp and millet are grown.

The principal Korean exports

are beans, fish, pearl shells, hemp, copper ore, tobacco, ginseng, timber and raw silk. The imports are chiefly cotton and woolen goods, tin plate, petroleum, glass, dyes and small machinery. In 1888 the net value of the Korean imports was \$3,046,443, and the exports \$867,058. In that year the net revenue was \$267,214.98, which was an increase of \$20,513.66 over that of the previous year. Korea is divided into eight *do*, or provinces, which are subdivided into 360 prefectures. The people are of the Mongolian race. They resemble the Japanese, but are larger than the Chinese.

Korea is governed by a king, whose government is somewhat similar to that of China. Buddhism is the prevailing religion, though Confucius has many followers. The teaching of Christianity was forbidden in 1888, but this prohibition is a dead letter, and there are now some thirty-five Protestant missionaries in Korea. On the 28th of February, 1884, Korea was connected with the rest of the world by telegraphic cable from Fusan to Nagasaki, Japan.

In 1876 Japan secured a commercial treaty with Korea, and on May 7, 1882, Commodore R. W. Shufeldt, U. S. N., signed a treaty with Korea on behalf of this country. It is said that no Koreans were known to travel beyond Japan and China until the royal embassy was sent in 1883 to the United States. Korean legations are now established at Tokio and Washington, and Korea has also sent diplomatic representatives to Great Britain, Germany, Italy, Russia and France, the five European nations with which Korea has treaties.

Mexico is fast becoming a coffee-producing country. The district of Seconusee contains twenty-six estates, employing 1,500 men. The cost of production is about 7 cents per pound, but as the demand is far ahead of the supply, sales are readily made on the plantation at 20 cents per pound.

# CLIONIAN REVIEW.

MOTTO—Pedetentim et Gradatim Oriamur.

ANNA DAGUE, Editor.

Society was visited by Miss Cora Linton, an old Clio, a few evenings since.

There is some talk of the "Merchant of Venice" being again played at the beginning of next term.

Mr. Jacob Schrock, principal of the Roxbury school, Johnstown, will teach a normal in that place this spring.

Miss Kilpatrick was recently made happy by a short visit from her brother-in-law, Mr. Jones, of Connellsville.

Miss Birdie Moss, an earnest Clio, who had to leave school last spring on account of sickness was with us a few days ago.

Clio still enrolls new members in her ranks, and although the society is very large, still remember, friends, "there is always room for one more."

"Heaven is not gained by a single bound," neither can Clio reach her zenith by a single stride; but steady and unfaltering is the step by which she is and has been seeking the true literary standard.

The Roscoe school, in which Misses Stella Yarnell and Janet Campbell are teachers, will close March 18th with a literary entertainment. The proceeds will be used to purchase a library for the school.

The dedication of the new Science Hall will not take place on the 31st, as announced on our first page, having been postponed for better weather. The building will be ready for use, however, at the beginning of the Spring term.

"Welcome back, old Clios!" Such is the greeting we extend to all former members and graduates; glad recently were we to have the privilege of once more looking into the bright and smiling faces of Messrs. Bowman, Lewis and Hertzog, of classes '91, '89 and '91 respectively.

Miss Lytle has during the past few weeks become famous as a critic. This office is undoubtedly one of the most important in society work and Miss L. has done great credit to herself by the tact she displayed in bringing out the commendable points and correcting the errors of the exercises.

R. M. Day closed a successful term's work at Lone Pine with an afternoon entertainment on March 8th. A large audience of the patrons of the school and others were present. An excellent dinner was furnished by the ladies and at the close of the performances Rev. I. N. Frye, on behalf of the pupils of the school, presented the teacher with a handsome gold pin.

The following officers have been elected for the present term of office: President, Mr. Smith; vice-president, Miss Cline; secretary, Miss Campbell; attorney, Mr. Lewis; treasurer, Mr. Mitchell; chorister, Mr. Altman; critic, Miss Greathead; valedictorian for the close of the present term of school, Mr. Meyers; salutatorian for opening of spring term, Miss Eve Powell.

The appearance of our hall has been greatly improved by placing in the center a beautiful hanging lamp, which is quite an improvement over the old chandelier. Its

great brilliant light is one of its commendable qualities and we might add that this contributes much to the lustre of the performances which are ever improving, and at all times worthy of being heard.

A large number of the students met in the chapel on Saturday evening, March 12th, and gave a representation of the mode of conducting business in the National House of Representatives. Bills were introduced, debates carried on, points of order raised, pages moved to and fro, members lounged in their chairs with their feet on their desks, the Speaker's gavel pounded, reporters took notes, and altogether a very vivid picture of Congress was given to the large audience in the rear of the chapel.

Mr. Thos. R. Wakefield, of Uniontown, is making things lively in old Fayette as a candidate for District Attorney. If energy and enterprise, coupled with ability and merit, will accomplish anything, his efforts will be crowned with success. Mr. W. attended college at Waynesburg for some time, then came to the Normal and graduated in the class of '78. He taught for a number of terms in the common schools, and was for some time principal of the Model school and later professor of geography and history in the Normal. He is now a rapidly rising member of the Fayette county bar, but still retains a large degree of interest in educational affairs, as is shown by his frequent presence at and participation in local institutes. He was a member of Clio, and traditions of the intellectual giants there were in Clio in those days still linger about the Normal halls. His many friends about the Normal and in California wish him success.



# Philomathean Galaxy.

MOTTO—Non Palma Sine Pulvere.

ARIZONA LONGDON, Editor.

Miss Conger is spending a few days at her home on account of the serious illness of her father.

Many old Philos are expected at the opening of the Spring term, and with them many new ones. Welcome, all!

The names of Rev. C. W. Miller, Postmaster J. B. Shallenberger and Prof. Ford have been added to Philo's list of honorary members.

Mr. Wiggins, in his inaugural address Friday evening, gave some very good advice, which, we think, may be a benefit to the society.

Philo is continually adding as co-workers new names to her already long list of active members. To all we extend the hand of friendship.

Our hall is now draped in mourning in due respect to Miss Ella Teggart and Mr. Nichol, whose deaths were recorded in our last issue.

The orations which have been given in chapel have been listened to with much interest; the wish is that they may continue in as interesting a manner.

We are accustomed to seeing every Friday evening on Philo's debating platform young ladies, who make the society feel that the ladies are as able for interesting discussion as the gentlemen.

The present officers of Philo are: President, Mr. Wiggins; vice-president, Miss Andrews; secretary, Miss Steele; attorney, Mr. Gabby; critic, Miss Patterson; treasurer, Miss Wilson; marshal, Mr. T. P. Sloan.

Mr. H. F. Parsons, '90, and Mr. L. S. Weaver, earnest Philo workers, paid us a visit Friday evening and each expressed himself as being glad to be again in Philo hall. Come again; we are always pleased to see old Philos and hear their voices.

Washington's birthday was observed by the students in chapel Tuesday morning. An account of his life was given in sections by different members of the school. The music rendered by the Juniors on this occasion showed excellent preparation.

The Seniors are looking forward with great anticipation to their proposed trip to Washington city. It is needless to say that an infinite number of air-castles have been built concerning the excursion, and our hope is that they may not be blown to pieces.

Another new term—the last one of the year—now approaches us. It is with joyous hearts that we look forward to the opening of a new term's work; for we know then our ranks will be filled to overflowing with willing hands to aid in hoisting Philo's banner higher, if possible, than it has ever been in the past. But, a sad thought presents itself to those for whom it is the last term—not for a year, but for a life—in which they can engage in the noble work. Yet, this is an incentive to each one to perform, faithfully, whatever work is given him. May it be a term's work of which we may justly be proud; and one upon which we may look in after years with feelings of pleasure.

## Resolutions on the Death of C. J. Nichol.

WHEREAS, It has pleased Almighty God in his infinite wisdom to remove from our midst to the great society above our beloved brother, C. J. Nichol, it becomes our sad duty and privilege to offer our tribute to his memory, therefore be it

*Resolved*, That in his death our society has lost a true member; his parents a dutiful son, and schoolmates a loving associate.

*Resolved*, That we extend to his sorrowing relatives our deepest sympathy in this dark hour and commend them to the Great Physician who healeth all of their wounds.

*Resolved*, That as a token of respect for our departed brother and schoolmate, our society hall be draped for a period of thirty days; that a copy of the resolutions be presented to the family of the deceased; that they be published in our school paper and posted in the minutes of our society.

## On the Death of Miss Ella Teggart.

WHEREAS, It has pleased Almighty God in his infinite wisdom to remove from our midst to the great school above our beloved sister, Ella Teggart, it becomes our sad duty and privilege to offer our tribute to her memory; therefore be it

*Resolved*, That in her death our society has lost a true friend and worker; her parents an affectionate daughter, and pupils a faithful and loving teacher.

*Resolved*, That we extend to her sorrowing relatives our deepest sympathy in this dark hour, and commend them for consolation to the Great Physician who healeth all their wounds.

*Resolved*, That as a token of respect for our departed sister, our society hall be draped for a period of thirty days; that a copy of the resolutions be presented to the family of the deceased, that they be published in our school paper and posted in the minutes of our society.

MARY H. MCINTYRE.  
FLORA HORNE.  
MAUDE McLAIN.  
CHAS. E. CARTER.  
THOS. P. SLOAN.

Committee.

# Language.

## ENGLISH.

### MODELS FOR PARSING.

PRESIDENT B. L. ARNOLD, PH. D.

#### I. THE NOUN.

1. General Class, Definition.
2. Sub-class, (Common or Proper; because etc.
3. Grammatical Predicates:
  1. Gender, because, etc.
  2. Number; because, etc.
  3. Person; because, etc.
  4. Case; because, etc.
4. Construction.
5. Inflection (Declension).

#### CONSTRUCTIONS OF NOUNS.

1. Subject of a verb—Rule.
2. Predicate of a sentence—Rule.
3. Object of a verb—Rule.
4. Object of a preposition—Rule.
5. Apposition—Rule.
6. Absolute construction—Rule.
7. Adverbial Objective—Rule.
8. Factitive Predicate—Rule.
9. Possessive or Genetive case—Rule.
10. Vocative.

#### II. THE PRONOUN.

1. General Class, Definition.
2. Sub-class (Personal, Relative, Interrogative, Demonstrative, Indefinite); because, etc.
3. Grammatical Predicates (Gender, Number, Person, Case); because, etc.
4. Construction (1. Refer to Antecedent in Gender, Number, Person; (2. Is subject, object, or possessive); because, etc.
5. Inflection (Declension).

#### III. THE ADJECTIVE.

1. General Class, Definition.
2. Sub-class (Qualifying, Numeral, Pronominal);
3. Degree (Positive, Comparative, Superlative);
4. Construction (Qualifies a Noun)
5. Inflection (Comparison).

#### IV. THE VERB.

1. General Class, Definition.
2. Sub-class (Transitive or Intransitive); because, etc.

3. Conjugation (old or strong, and new or weak); because, etc.
4. Principal parts (Present Preterti, Past Participle),
5. Grammatical Predicates:
  1. Voice; because, etc.,
  2. Mode; because, etc.,
  3. Tense; because, etc.,
  4. Number and person;
6. Construction.
7. Inflection (Conjugation).

#### CONSTRUCTIONS OF THE VERB.

1. Agreement with the subject in number and person—Rule.
2. Direct or indirect object—Rule.

#### V. THE ADVERB.

1. General Class, Definition.
2. Sub-class (Time, Place, Manner, Degree, Modality,) because, etc.
3. Construction (Limiting a Verb an Adjective or Adverb).

#### VI. THE PREPOSITION.

1. General Class, Definition.
2. Construction (shows what words it connects and what relation it expresses).

#### VII. THE CONJUNCTION.

1. General Class, Definition.
2. Sub-class (Co-ordinating or Subordinating); because, etc.
3. Construction (shows what words or sentences it connects).

#### VIII. PHRASES

1. General Class, Definition.
2. Sub-class (Noun, Pronoun, Verb, Adjective, Adverb, Preposition and Conjunction).
3. Construction (same as the part of speech for which the phrase stands).

#### IX. CLAUSES.

1. Definition.
2. Clause (Independent or Dependent).
3. Sub-class of Dependent (Adjectives, Adverbs, or Substantive).
4. Construction (same as the part of speech, for which the clause stands).

Inattention is rarely seen where the teacher habitually uses a cheerful, low voice, coupled with the downward inflection of earnestness.—R. Anna Morris.

#### Additional Language Work.

##### CAPITAL LETTERS:

Official titles.  
Literary titles.

##### TALK:

Amphibious animals.  
Chile's offense to Uncle Sam.  
Washington as a farmer.

##### DISCUSSION:

Which is of the greater value to mankind, the sewing-machine or the telegraph?

##### CONVERSATION AND COMPOSITION:

Our first President; his wife; the institution of customs pertaining to the presidency; was there a marked imitation of royalty?

A journey through Southern Europe; interesting sights and experiences; the customs and employments of the people.

A lamb calls our attention to the fleece on its back, and prophecies concerning its use and experience in the world.

#### Memory Gems.

There is no substitute for thorough-going, ardent sincere earnestness.—*Dickens*.

Honor and shame from no condition rise;

Act well your part, there all the honor lies.—*Pope*.

But words are things, and a small drop of ink,

Falling like dew, upon a thought, produces

That which makes thousands, perhaps millions, think;

'Tis strange, the shortest letter which man uses

Instead of speech, may form a lasting link

Of ages; to what straits old Time reduces

Frail man, when paper, even a rag like this

Survives himself, his tomb, and all that's his.—*Byron*.

Courage consists in not blindly overlooking danger, but in seeing and conquering it.—*Ritcher*.

There is no crown in the world so good as patience.

So, here hath been dawning another  
blue day,  
Think, wilt thou let it slip useless  
away?—*Carlyle*.

When wisdom entereth into  
thine heart, and knowledge is  
pleasant unto thy soul, discretion  
shall preserve thee, understanding  
shall keep thee.—*Bible*.

Be good, dear child, and let who will  
be clever;  
Do noble things, not *dream* them  
all day long,  
And so make life, death, and that  
*vast forever*,  
One grand, sweet song.—*Kingsley*.

### Mental Drill in Arithmetic.

B. K. S.

It is a fact that there is by far too much written arithmetic in many of our schools. This is important, most important, but it renders the pupil entirely dependent upon pencil and paper; practice in obtaining results by quick mental processes, is as greatly to be desired. To use some mental arithmetic at all times is not well. Teach concentration of attention by giving some problem to the school, and at first have the pupil repeat *only* the problem. Do not have it too long to commence with, and do not use the book yourself.

Each child will follow closely, and by this means you will develop a faculty of retention of the entire thought. Too many children, in which this has been neglected, actually lose sight of the first part by the time the last part has been reached, even though giving their attention. When each member of a class can repeat an entire problem, the teacher can go on to the next step; have them solve the problem mentally. Begin with single thought examples, and add more and more as the strength of the class requires. It does not seem necessary to confine one's self to abstract work entirely, merely presenting an array of figures, such as  $9 \times 8 \div 4 \times 15 - 10 \times 50 \div 25$  equals what?

Now and then such exercises may be of value, but to most minds such combinations are puzzling in the extreme. It is not the desire of this article to decry practice in such lines; we magnify the necessity of quick mental drill.

In all classes where the fundamental principles are taught, it seems as if such mental drills would be of great value. In these lower grades we believe in laying a good foundation of abstract numbers. The pupil, who is not sure of the mechanical part, will be overwhelmed by the difficulties which confront him, in a concrete problem.

The higher grades of all schools complain that their work is hampered by the pupils' inability to perform the mechanical part of their problems accurately. Much of the work in these lower grades is done well, and in most instances, where it is faulty, it is because the teacher has been obliged to hasten in order to cover the work laid out by her superiors.

### Fifteen Minutes in Physical Geography.

BY CHAS. H. SMITH.

During a recent vacation I visited a school in which every member seemed to be thoroughly filled with the subject under consideration. When "Longitude and Time" were being discussed, one would have thought the class were a body of young navigators, and the beginning class in grammar appeared to study in English in general. The class in history talked of places and battles with as much familiarity as though they had been there themselves. A few notes from the recitation in Physical Geography will be self explanatory.

Dew is vapor deposited on grass, the leaves of trees, stones, and other objects, when they are colder than the overlaying air. Take a glass of cold water into a hot room, and the outside of the glass will immediately be covered with a film of minute water-drops. The glass is really covered with dew,

formed in precisely the same way as the dew on the grass.

Mist is cloud formed, not in the upper air, but close to the surface of the ground; and it differs from dew in being formed, not on the ground, but in the air immediately above it. It frequently occurs in the midst of mountains, which cool the air that surrounds them, so that the moist vapors rising from the valleys are condensed as soon as they reach the higher regions. Mist is partly deposited in moisture on the earth, and partly re-evaporated and dispersed by the heat of the sun.

RAIN, HAIL, SNOW, &C.—When condensation continues, the minute particles run together and form drops, which can no longer be suspended in the air, but fall to the earth by their own weight. This is *rain*. When rain drops are frozen in their descent, they form *hail*. When the minute particles are frozen without assuming the form of drops, they fall to the earth in *snow*. The two other forms in which the vapor of the atmosphere is condensed are dew and mist.

BROOKS AND RIVERS.—This moisture saturates the surface, forming morasses or swamps; or saturates the sub-soil, forming springs. Morasses and springs overflow into brooks and rivers. Brooks and rivers carry the moisture to the sea, whence it came, and thus the system of water circulation is completed.

Some brooks and rivers come from the *glacier-ice* of great mountains.

RIVER-BASINS AND WATER-SHEDS.—A great river and all its tributaries form a *river-system*. The high land between two adjoining river-basins, which, like the ridge on the roof of a house, divides the water flowing from it, and sends the rivers in opposite directions, is called the *water-shed*. When the water-shed lies east and west, as in Europe and Asia, the general direction of the rivers is north and south. When the water-shed lies north and south, as in South America, the general direction of the rivers is east and west.

## The Relations of the Public Library to the Public Schools.

W. H. BRETT.

There is a strong desire and earnest effort evinced by discussions which have taken place to broaden and enrich the course of study in the Grammar schools. The various plans which are urged for this purpose have this in common—that they are disposed to free themselves from the exclusive use of text-books, text-books which are too often mere quiz compends and to study literature, history and the natural sciences by broader and more attractive methods. This implies the use of books and suggests the library. If I am able to illustrate the value and emphasize the necessity of co-operation of teacher and librarian I shall have accomplished my purpose.

The public library and the public school are the development of the last sixty years. These sixty years of the life of our country have been years of vigorous growth, boundless expansion, marvelous activity and undreamed of progress. They have witnessed changes in the conditions of business and manufacturing which amount to an economic revolution. It is not wonderful that a large and increasing population cannot without difficulty accommodate itself to such changed conditions. It is wonderful that the discontent is not more general.

One result of this has been a demand for some change in educational methods which will render them more helpful in the struggle for existence. It has been urged that the public school should aim to fit its pupils to earn a living. This demand ignores real education. The aim of the school is character, not livelihood. Given this and that will follow. It would fit its pupils to live a life, not merely earn a living. It would set their feet in that way which if they should continue to walk therein they would reach true manhood and womanhood.

The public library has shared the

quickenings of the times, and made its greatest growth within the last twenty years. The library association, journal and school are all progressive and helpful. There were in 1885 twenty millions of volumes in five thousand libraries, an increase of more than fifty per cent. during the past nine years. The years since elapsed have been full of growth.

The library supplies the means of self-culture to those of the slightest attainment and to the liberally educated man. It is the work-shop of the earnest student.

To supply the young people with books and stimulate their reading and to guide it to higher levels are among the most important duties of the library. The libraries of the country are doing much in this direction for the children both in school and out. They buy books especially with reference to the needs of the school, and furnish every possible assistance to the pupils in their use. They issue a larger number of books to teachers for the use of their pupils in some instances to the extent of fifty volumes in each room. In some libraries special study rooms are provided to which teachers may bring their classes for lessons to be illustrated by volumes in the library.

The use of the library for reference and study by both teachers and pupils is an important part of the work. The Worcester, Mass., public library has done exceptionally good work in all these lines during the last twenty years. The Detroit, the Chicago and the St. Louis public libraries are all active in the work. The work of the Milwaukee and Cleveland libraries is noticeable, in that they have carried further the plan of placing larger collections of books in the school room for a longer time, forming practically little branch libraries for the use of pupils and their families. The advantages of this plan are very great, and its good influence extends beyond the school room.

These collections include history, biography, travel and a fair share of good stories. The testimony of

the teachers as to their value is unanimous. Interesting the pupils, they assist in the discipline of the school. They are influential in replacing trash reading; they improve the pupils in the use of language and give them broader information in history and geography. They influence the homes of the pupils for the better. The broadening methods of the Grammar schools compel the use of books. The advantages of small collections for each school in all grades, from those who have just acquired the mechanical art of reading to the highest Grammar grades, is very great. The High school pupil needs a larger collection of books and must use the main library. The importance of this work for the lower grades cannot be overestimated. They contain that great majority who will never enter the High school, whose opportunities are least and whose needs are greatest. Let the resources of our libraries be used to the utmost for their benefit. They cannot be used more worthily. Let the teacher and the librarian unite their best efforts to help those boys and girls to read and to enjoy reading. Then, though their school days must end so soon, their education will go on increasingly.

### The Stars and the Earth.

It is generally thought by astronomers to-day that all the celestial phenomena within reach of human vision belong to a single great system; but it is not yet possible to say just what the controlling order in the motions of the stars composing the visible universe is. Observation shows that all the stars are in motion, but with varying velocities, and in all possible directions. In the same quarter of the sky, and even in comparatively crowded aggregations of stars, some are found to be moving in one direction and some in another. In the case of the well known figure of the Great Dipper, for instance, the motions of the stars are such that in the course of some thousands of years that figure will cease to be remarked in the sky. Many of

its stars will have separated, going in several directions, although some of them will continue to keep company, as their journey lies the same way in space. So, too, some of the stars are approaching us and some are receding from us. The spectroscope, aided by photography, enables astronomers to measure the velocity of these flying suns that are either coming nearer to us or passing further from us, with an accuracy that takes account of a single mile per second. The sun is not exempt from this universal law of motion. It is speeding at the rate of several hundred millions of miles in a year toward a point in the northern heavens situated not far from the brilliant star Vega, a sun that is vastly more luminous than our own. So we on the earth are not travelling, as most persons imagine, in a beaten track around the sun year after year, but the earth follows the sun in its northward pointed course and consequently sweeps onward in vast spirals around the moving sun, so that we are continually borne into new regions of space.

The extension of the law of gravitation throughout the universe has been questioned, but never very seriously, and every fresh investigation of stellar motion strengthens the belief that that law really governs the whole visible celestial system. In the case of the binary stars, of which a great number are known, the revolution of the two stars around one another or around their common center, evidently takes place in obedience to that law. Now, if gravitation extends throughout the universe, no star can escape from the attractive influence of every other star, and of all the other stars. So gravitation in itself forms, as it were, a system of links or chains binding the stellar system together. More than once it has been imagined that the great center of motion in the universe had been discovered or located. Many years ago Madler thought that the Pleiades were the center around which our sun was moving, and the beautiful star Alcyone became widely cele-

brated as the great central sun. But it was all imagination. Later investigation showed that Madler was mistaken, and now astronomers are not even prepared to say in what direction the center of the sun's motion lies, or, indeed, whether it is not at present actually flying ahead in a straight line. The fact seems to be that there are many centers of motion, as the tendency of the stars to aggregate in streams and clusters indicates, but the precise relation of these aggregations to one another has not yet been made out.

The very variety which we behold in the universe shows so clearly the operation of systematic forces of development that it serves as an argument in favor of the view that all we see are only different parts of a single system. Elements that exist in the earth are detected glowing in the atmospheres of stars in all quarters, but the same instrument which reveals the presence of these elements, discovers also the fact that the bodies constituted of them are in various stages of development. Our sun represents only one type of a solar body, and its condition is not permanent and unchangeable. In Sirius and Vega we behold suns which are evidently glowing with a far fiercer energy and a much greater intensity of radiation than our sun exhibits at present. But we may go a step further back than that which Sirius or any star represents, and perceive in the whirling spirals of the Andromeda nebula, and in the vast streams and condensing aggregations of the Orion nebula, evidence of the formation of stellar centers out of elemental chaotic clouds through a process that is going on now, and, so to speak, under our eyes. It is indeed a living universe which includes the earth that we inhabit.—*New York Sun*.

#### DEATH OF PROF. MOMMSEN.

Professor Theodor Mommsen, the great German historian, died at Kiel, Germany, February 3. Professor Mommsen was one of the last of a dwind-

ling group of scholars who made a golden age for Germany's universities. Mommsen belonged also to a political generation which is almost extinct. He was one of the empire's forty-niners; that is, the men who worked and suffered in the revolutionary days of 1848-49. Mommsen was born on November 30, 1817, at Gerding, in Holstein. His earliest education was given him by his father, an evangelical pastor. From the gymnasium at Altona he was graduated into the university of Kiel. In 1842 he became a doctor of philosophy, and one year later, at the age of twenty-five, he published the first of a long series of works on which his fame as a scholar rests. It was entitled "De Collegiis et Sodalibus Romanorum". This was followed soon by another work of similar thoroughness and beauty of style, and dozens of letters, essays and criticisms in newspapers and periodicals.

Mommsen, still under thirty, was known throughout Germany, not only for his dashing style and deep learning, but also for his arrogance and bitterness in controversy. His great work was his "History of Rome," which is one of the classics of history. Mommsen was a bitter foe of Bismarck, and for a severe attack on him was arrested, but on his trial was acquitted.—*Reform Advocate*.

Intellect is the gift of God and in respect for Him it should be cultivated with the greatest assiduity. "Bury not thy talent in the earth" is the impressive mandate. But sowing in the soil of intellect the seeds of wisdom and truth, he will reap rich honors that will forever shine among the world's renowned of intellect.

Man is surrounded by the greatest and best minds which have reared their monumental piles upon the soil of intellect. The immortal Shakespeare, who searched out and exhibited the workings of the human heart; the philosopher Bacon, in whose colossal mind we find the origin of genuine science; the classic Milton, whose immense learning designated him as the finest scholar England ever produced; as well as modern poets and philosophers are alike his companions.

# Grammar.

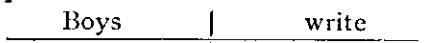
## The Horizontal Diagram.

MAY ALEXANDRA FRASER.

Preparation for the lesson: The class has been taught the oral analysis of simple compound sentences containing adjective, adverbial and objective modifiers of the first and second class.\* Their teacher has promised them that as soon as they have mastered the oral analysis she will teach them to diagram, and they have been very anxious for the time to come when they shall explore the mysteries of the new word that sounds so inviting.

Miss Blank steps to the board, and drawing a horizontal line says, "Every sentence, you know, *must* have a subject and predicate, either expressed or understood; they are the foundation upon which the sentence is built; this line represents the foundation, or necessary elements, and I will divide it in the center, with a short vertical line to show where the subject ends and the predicate begins:

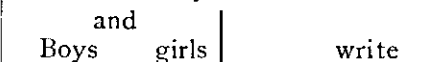
We will take the sentence, 'Boys write.' 'Boys' is the subject, so I will put it on the horizontal line, at the left of the vertical, because that is the part of the diagram which always represents the subject, and writing a word there is just the same as saying that it is subject of the sentence. To the right of the mark of division I place 'write,' because it is the predicate:



The first row may come to the board and diagram this sentence, while the others do it on their slates: 'Men think.' The second row: 'Girls play.' Yes; you see it is very easy. But suppose that our subject is compound, 'Boys and girls write,' then we will put both members of the compound element on the subject line, with

\* Form for Oral Analysis.

the connective just above like this:



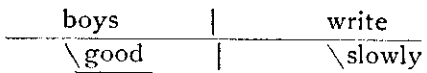
The third and fourth rows go to the board and diagram. 'John and James play,' 'Mary plays and sings.'

"But suppose the sentence has a noun or adjective predicate joined to the subject by a copula, we separate the copula by means of a colon, thus:



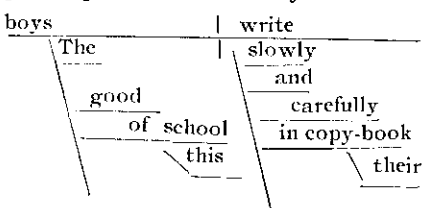
All sentences do not consist simply of subject and predicate. What kind of element do they sometimes contain, Ella?"

"Adjective and adverbial elements." Yes, and —?" "Objective elements." "A small slanting line represents both the adjective and adverbial element:



I wonder if any one can tell me when it represents an *adjective* and when an *adverbial* element, John? "I think it represents an adjective element when it is joined to a name a pronoun."

"You are right, and an adverbial element when it is joined to a verb, participle, adverb or adjective."



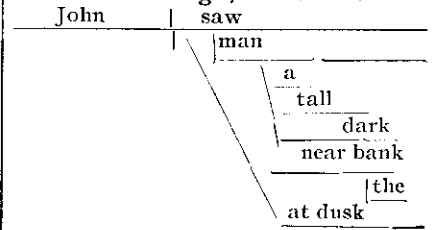
The objective element. "Besides the adverbial, what kind of element may modify a verb?"

"The objective element." "We cannot use a slanting line to represent it, because we have already taken that for the adverbial element, so we use a short vertical line:



When the verb is also modified

by adverbial elements, we join them to the predicate line by means of the adverbial sign, as before:



- A sentence. Why?
- Simple, complex or compound. Why?
- Dec., Int. or Imp. Why?
- Subject. Why?
- Predicate. Why?
- Object. Modifying what?
- Subject modifies. Modifying what?
- Predicate modifies. Modifying what?
- Object modifies. Modifying what?

†This is a condensed account of several lessons. The signs for the copula and objective element were not touched upon until the first steps had been mastered, and were then given one at a time.

## The Gulf Stream.

The currents of the ocean are the great transporters of the sun's heat from the torrid zone to temper the climate of the polar regions. It is argued by some that such a stupendous change as that which occurred in Europe and America at the time of the glacial period was caused simply by a deflection in the currents in the northern hemisphere whereby its share of tropical heat was partly diverted toward the south. In the three great oceans, the Atlantic, the Pacific and the Indian, there is to be found a similar circulation—a general westerly movement in the tropics, a flow toward the poles along the eastern shore of the continents, an easterly set in the temperate zones, and a current toward the equator along the western shores. This system thus becomes a grand circular movement, some parts being very slow, but still quite constant; and other

parts very swift. There are offshoots here and there, due to local causes, and perhaps in the slowly moving current there may be a temporary interruption, but, taken as a whole, the movement is continuous.

The part of this circulation flowing along the eastern coast of the United States is the greatest of all these currents, and, in fact, is the most magnificent of all nature's wonders. This is the Gulf Stream. The name Gulf Stream was first suggested by Benjamin Franklin, because it comes from the Gulf of Mexico. While it is a portion of the grand scheme of ocean circulation, and the Gulf of Mexico is in reality only a stopping-place, as it were, for the waters, the name is generally applied to the current when it reaches the Straits of Florida, north of Cuba. In the large funnel-shaped opening toward the Gulf of Mexico the current at first is variable in direction and velocity, but by the time Havana is reached it has become a regular and steady flow. As it rounds the curve of the Florida shore the Straits contract, and the water then practically fills the banks from shore to shore and reaches almost to the bottom, which is at this point about three thousand feet deep. As it leaves the Straits of Florida its course is about north, but it gradually changes its direction, following approximately the curve of one hundred fathoms' deep until it arrives at Cape Hatteras. From this point it starts on its course to Europe. It has lost something in velocity as well as in temperature, and as it journeys to the eastward it gradually diminishes in both, until it becomes a gentle flow as it approaches Europe. People think the Mississippi river a grand stream, and it is so in truth, as far as land rivers go; but great as it is, it would require two thousand such rivers to make one Gulf Stream. The great ocean river is an irresistible flood of water, running all the time, winter and summer, and year after year. It is as difficult for the mind to grasp its immensity as it is to realize the distance of nearest stars. At its narrowest

part in the Straits of Florida it is thirty-nine miles wide, has an average depth of two thousand feet, and a velocity at the axis (the point of fastest flow) of from three to more than five miles per hour. To say that the volume in one hour's flow past Cape Florida is ninety billion tons in weight does not convey much to the mind. If we could evaporate this one hour's flow of water and distribute the remaining salt to the inhabitants of the United States, every man, woman and child would receive nearly sixty pounds.

It is curious to note in the history of the Gulf Stream how great its influence has been on the fortunes of the New World. Before the discovery of America strange woods and fruits were frequently found on the shores of Europe and off-lying islands. Some of these were seen and examined by Columbus, and to his thoughtful mind they were confirming evidence of the fact that strange lands were not far to the westward. These woods were carried by the Gulf Stream and by the prevailing winds from the American continent, so that in part the Gulf Stream is responsible for the discovery of the New World. Ponce de Leon, while on his famous search for the Fountain of Youth, made the discovery of this more practical beneficial phenomenon. The whalers of New England were the first to gain a fairly accurate knowledge of the limits of the current between America and Europe, by following the haunts of the whales, which were found north of one line and south of another, but never between the two. This, they reasoned, was the Gulf Stream current. Benjamin Franklin received this information from the whalers, and published it on a chart for the benefit of the mail packets plying between England and the colonies. The chart was issued about 1770, but was not accepted by the English captains. Before it came to be generally known and used the trouble between England and the colonies began, and Franklin, knowing the advantage the knowledge would

be to the British naval officers, suppressed it all he could until hostilities ceased.—*John Elliott Pillsbury, in the Century for February.*

At its last session the Legislature of Pennsylvania passed an act requiring the county commissioners of each county to "provide, furnish and maintain fit and suitable office rooms," at the county seat of each county for the use of the county superintendents of common schools; also to provide and furnish and maintain safe and suitable storage in connection with such office rooms, for the preservation and safe-keeping of the school records, books and documents, "pertaining to such offices."

The friends of county supervision will readily see that next to provision for a fair salary, the provision for an office at the county seat, and a place where school records can be preserved, is the most important step to be taken to promote the growth and usefulness of county supervision.

It is necessary that the county superintendents have a local habitation and the county seat is the place for it. This legislation will work an advance step in the educational work of our sister State and we hope at an early day to see a similar law provided for West Virginia.—*W. Va. School Journal.*

Nothing more forcibly demonstrates the absurdity of our barbarous system of weights and measures than the compilation of statistics. We have tons of 2,240 pounds, of 2,000 pounds and the metric ton of 2,204½ pounds, or 1,000 kilos, to say nothing of the other special tons used in certain industries. We have ounces troy and avoirdupois, and grains and grams, with innumerable other weights. It is indeed high time that all civilized countries adopt the single metric standard of weights and measures—in which case the statistics bonpiled in one country will be available for comparison elsewhere without necessitating the laborious recalculation from one system into the other.

## The Cook County Normal.

## ENGLEWOOD, ILL.

DEAR REVIEW:—Making a broad classification, it may be said that with respect to their attitude and spirit, schools are divided into two classes. One class believe (or act as if they believed) that the ultimatum of knowledge and the perfection of methods have been reached; the other class believe (and practice what they believe) that the "sine qua non" has not been reached. And, while they are conservative to the degree that they do not accept as true "each new hatched, unfledged" theory, because it is new, yet they keep their eyes open in search of the truth, and as soon as the new will bear the test of unprejudiced reasoning they will give it a trial. They believe that the world as well as man is not finished yet; that geology is still toiling to-day at the unfinished earth, and that a higher and nobler race of people is to be evolved from present material.

To this latter class I believe the Cook County Normal, in the City of Chicago, belongs; and I may add right here that the school in whose interest you are published, dear REVIEW, belongs to the same class. There seems to be a close relationship between the California Normal and the Cook County Normal, one of the best teachers in this school, Mr. Jackman, being a graduate and ex-teacher of your school; also one of the best teachers in the California Normal, Miss Eve C. Downer, being a graduate of this school. Because of this mutual interest we started out to write a few notes about our present school.

The training class numbers about one hundred and fifty. While the school is conducted first for the residents and teachers of Cook county, yet its students come from as wide a range almost as do those from any of our large colleges. The present class has representations from 19 of the different states, scattered from Massachusetts to California, and from Wisconsin to Texas; two from Canada, one from Ireland, one from Norway and one from Switzerland. We have many visitors distinguished in educational circles. In looking over the visi-

tor's register we find the following within the last two months: James L. Hughes, Toronto, Canada, inspector of schools; David McPherson, chairman of school management committee, Toronto, Canada; George T. Murphy, assistant superintendent of schools, St. Louis, Mo.; C. L. Ford, Ann Arbor, Mich.; J. Howles, London, England; J. Toensfeld, principal Educational Institute, St. Louis, Mo.; Mary A. Tanner, superintendent of Harden county, Iowa; and Mary A. Livermore, the authoress and lecturer, of Melrose, Mass.

Outside of Illinois Pennsylvania has more representatives here than any other state.

The city of Chicago takes about three hundred new teachers each year to replete her ranks, and the present City Superintendent has said there would be no doubt that all members of the Normal who would pass the city examination would get positions in the city if they so wished.

The class of '91, of the S. W. S. N. S., has three representatives here now, [Misses Etta Lilley, May Reis and the writer,] and it is to be hoped that many more in the future will avail themselves of a solid year of training pure and simple. Wishing you and the institution you represent, dear REVIEW, unbounded success and usefulness. I remain your earnest friend,  
C. H. D.

Rev. A. S. Flanigan, '87, of Algona, Ia., in a letter not intended for publication, but which will interest many of our readers, writes as follows:

Since I came to Iowa and entered the ministry I have been very successful. I began on the lowest charge in the district and now have the best or highest grade. There are three points of the same rank. Algona is the head of the district; it is a town of about three thousand inhabitants. It has a normal school which, it is hoped will become a State Normal at this session of legislature. Prof. Gilchrist was here two or three years as principal of the school but is now in Sioux City in the new university. We have a large membership and a nice church. There are eight churches in the town. My salary is \$1,200. I was married last winter to Lois Miller, of Mt. Vernon, Ia.

Mrs. Josie Sheplar Miller writes from San Francisco, California, as follows, to the Daily Republican: I wish I could send you some of this glorious June weather in return for the Republican,

which is a daily welcome visitor. I am in excellent health, weigh 10 pounds more, and feel mighty comfortable. Have visited a number of schools and find them inferior to our Pennsylvania schools, while the school houses are horrible! All children have to be vaccinated when they enter school; I had Hazel vaccinated, and she has been quite ill in consequence, with cow pox. I will have a school and begin life again as a teacher about the first of March.

A few days ago we enjoyed a short visit with Rev. L. O. Sutherland, who is located at Livermore, Ia., and engaged as a Sabbath school missionary of the Ft. Dodge Presbytery. Mr. S. and the editor were classmates in the S. W. State Normal school of Pennsylvania. Although we had not met since the summer of '83, we found no difficulty in bringing the retrospective telescope to a focus on the upper Monongahela, and the scenes of chapel, class room, campus and river, were presented to our view again. An occasional visit with some of the classmates of your school days, has, we believe, a more rejuvenating effect than Dr. Keeley's bi-chloride of gold.—Wright County Teacher.

The chair of Elocution has been happily filled by the selection of Miss Acken, a graduate of Dr. Emerson's celebrated school of Oratory in Chicago. She was also for some time a teacher in that institution. Coming recommended as she does and with this record, we cannot doubt her entire success in her new position.

Rev. C. W. Miller, of the M. E. church, visited us at morning chapel, March 10, and gave us an unusually interesting and instructive five minutes' talk.

Prof. Hall attended the Epworth League convention in Washington last week. H. F. Parsons and Harry Chalfant were also delegates.

The school board at Uniontown has increased Principal Lee Smith's salary from 90 to 100 dollars a month. A well deserved and tangible compliment.

At chapel, on March 11th, a large number of short selections from the poet Longfellow were recited by various students. The song "The Bridge" was finely rendered by Miss Gallagher, of the Senior class.