Science.

Condensed Chronology.

A large part of the time and labor devoted to the study of history is generally lost, because pupils can obtain no well-defined ideas of the chronology of the events recorded. For the same reason, these pupils will in subsequent life read history with very little pleasure or profit, and will be likely to prefer other and less profitable reading. To remedy the defect above named, we know of no plan so successful as to have a general outline of chronology thoroughly committed by every scholar, and frequently reviewed during the whole course of instruction.

The following, compiled from various sources, has been used by the writer for several years, and with the most gratifying results:

Chronology treats of the computation of time and the dates of important events; it is of two kinds, astronomical and historical. Astronomical chronology treats of the computation of time; historical chronology of the dates of important events. Historical chronology is divided into ancient, mediæval, and modern.

Ancient chronology extends from the creation, B. C. 4004, to the fall of Rome, A. D. 476, a period of 4480 years. Mediæval chronology extends from A. D. 476 to the discovery of America, in 1492, a period of 1016 years. Modern chronology extends from 1492 to the present time, a period of 361 years.

Ancient chronology is divided into three great portions by the deluge and the advent of the Saviour. They are denominated:

I. Antediluvian ages, extending from the creation to the deluge, A. M. 1656, a period of 1656 years.

II. Postdiluvian ages, extending from the deluge to the coming of Christ, A. M. 4004, —2348 years.

III. Postadvent ages, extending from the advent to the fall of Rome, A. D. 476—476 years.

The antediluvian ages are not subdivided into periods.

The postdiluvian ages are divisible into eight periods:

1. From the deluge, B. C. 2348, to the call of Abraham, B. C. 1921—427 years.
2. From 1921 to the exodus of the Israelites, B. C. 1491—430 years.
3. From 1491 to the building of the Temple, B. C. 1004—481 years.
4. From 1004 to the founding of Rome, B. C. 752—252 years.
5. From 752 to the battle of Marathon, B. C. 490—262 years.
6. From 490 to the reign of Alexander, B. C. 336—154 years.
7. From 336 to the conquest of Carthage and Greece, B. C. 146—190 years.
8. From 146 to the birth of Christ—146 years.

The postadvent ages are divided into two periods:

1. From the advent to the reign of Constantine, A. D. 306—306 years.
2. From 306 to the fall of Rome, A. D. 476—170 years.

Mediæval chronology is divided into five periods:

1. From A. D. 475 to the Hegira, or flight of Mohammed, A. D. 622—146 years.
2. From 622 to the crowning of Charlemagne, A. D. 800—178 years.
3. From 800 to the landing of William the Conqueror, A. D. 1006—266 years.
4. From 1006 to the overthrow of the Saracens, A. D. 1258—192 years.
5. From 1258 to the discovery of America, A. D. 1492—234 years.

Modern chronology is divided into five periods:

1. From 1492 to the abdication of Charles V., A. D. 1556—64 years.
2. From 1556 to the restoration of Charles II., A. D. 1660—104 years.
3. From 1660 to the declaration of independence, A. D. 1776—116 years.
4. From 1776 to the fall of Bonaparte, A. D. 1815—39 years.
5. From the fall of Bonaparte, 1815, to the present time.—*Ohio Journal of Education.*

The Cannon Ball Tree.

Among the plants of Guinea one of the most curious is the cannon-ball tree. It grows to the height of sixty feet, and its flowers are remarkable for beauty and fragrance, and contradictory qualities. Its blossoms are of a delicious crimson, appearing in large bunches, and exhaling a rich perfume. The fruit resembles enormous cannon-balls, hence the name. However, some say it has been so called because of the noise which the balls make in bursting. From the shell domestic utensils are made, and the contents contain several kinds of acids, besides sugar and gum, and furnish the materials for making an excellent drink in sickness. But, singular as it may appear, this pulp, when in a perfectly ripe state, is very filthy, and the odor from it is exceedingly unpleasant.

The Bread-fruit Tree.

This tree is found on the islands of the Pacific Ocean. The trunk rises to the height of thirty or forty feet, and attains the size of a man's body. The fruit grows about the size of a child's head. When used for food it is gathered before it is fully ripe, and baked among ashes, when it becomes a wholesome bread, and in taste somewhat resembles fresh wheat bread.

This is a very useful tree to the natives; for, besides its fruit, which supplies them with food, its trunk furnishes timber for their houses and canoes; the gum which exudes from it serves as pitch for the vessels, and from the fibres of the inner bark a cloth is made to cover their persons.

The Tallow Tree.

This tree is found in China. It is called the Tallow tree because a substance is obtained from it resembling tallow, and which is used for the same purpose. It grows from twenty to forty feet in height.

The Farm.

RURAL LIFE.

It is seldom that we find a sketch of rural life so graphically, beautifully and truthfully depicted as the one we are about to give to our readers. It is a scene that Paul Potter could transfer to canvass, or Gerard Dow or Teniers embalm in imperishable colors. And here it is, and its source will be discovered before the reader finishes the article:—

What are the country people at, this weather? We mean the people who live so far into the country that they cannot take a daily paper and have the news of the whole world's morning poured into their ears after breakfast. Well, the sun rises when about an hour high, in such places, generally. And before the farmer has finished his breakfast of buckwheat cakes and fried ham, it is time for Henry and little Sarah to be wrapped in the warm comforters, their nice woolen mittens warmed, and they to be off to school. Here is Uncle Ben, jnst passing with his sled-load of hogs on the way to market. The little ones can climb up to his seat in front, and burying themselves in the buffalo-skin till nothing but their crimson noses and sparkling eyes show outside, ride to the very door of the old school-house. The smoke curls up lazily from the chimney, but it is a very copious smoke, and if there is not a heater inside, little Sally has missed her guess. The boys have built a fort outside which is almost as high as their heads, behind which, safe, from the missiles of the enemy, they can fire their snow-balls into the foe. The down-towners have got possession this morning, and even now the sturdy up-towners are preparing to assault it. The word is given, and the attacking force is in motion. The snow-balls fly into their faces, filling their coats and bosoms, but they only inflame the ardor of the up-towners the more for victory. They have mounted the slippery wall of the fort, and are just about to leap without, when the rat-tat-tat of the master's ferule upon the door-sill brings the battle to a sudden conclusion. The assailants and the assailed brush off the snow hurriedly, and with glowing faces and hands rush into the studious contemplation of dogs-eared grammers, and arithmetics, geographies, spelling-books, and runnidg-hand copies in penmanship.

The farmer lays a larger fore-log on the andiron, and goes out to fodder. He chops up a few pumpkins for the milch-cows, deals out a measure of corn for old "brindle" which must die a week to-day to fill the beef-barrel, throws a few nubbins to the working-oxen that they may be in condition for the spring work, and then mounts the hay-mow. The farmer knows what he's about. There is a warm stable for each of the cattle, and even calves have, for every two a stable of their own. The sun comes out so bright to-day, he opens the doors, lets down the bars, and permits them to stroll for a few hours in the common yard. The rack is filled with timothy, and the farmer pumps a trough full of water for their use. Hurry, old gentleman, or before you have given the hens their corn and replenished their cup of lime-water, curried down the horses and fed them their oats, given the pigs—alas! their fathers and mothers were made pork of a month ago, and though they are of a tender age and little able to support the dignities and responsibilities of porkers, they must do it, for they have no betters now,—greased the wagon and put new straw into the sleigh bottom, the bell will ring for dinner. After dinner, some stalks must be given the cattle, and then must come the promised sleigh-ride, when mother will take down a basket of eggs to get some sugar with, and a pound of that beautiful yellow butter—which the boarding-house keeper, whose invention of yellow spectacles, to pass off lard upon his boarders for butter, never dreams of buying, it comes so high in the market—to barter for a calico dress. Get in with them, and ride down to the store. The post office is there, and there are all the hangers-about who have no cattle to fodder, and the slack farmers who stack their corn-stalks in the barn-yard, that the cattle may help themselves, and leave the bars down, that they may go to the spring to drink, when they choose. There the idlers and the lazy all do congregate. They champ peanuts and craunch apples over the red-hot stove, and at odd spells they play a game of back-gammon. They talk over village gossip and local politics, and one more wise than the rest, who has borrowed the farmer's *N. Y. Weekly Times* from the newspaper box in the post-office, reads occasionally a paragraph from it, perhaps about the caloric ship, and then they laugh about the *Arabia* which did not beat the *Baltic*, and bet that we will have Cuban members in Congress before the new meeting-house is paid for!

But the good woman has made her purchases, and the farmer has got his paper and the news, so the grey mare is headed for home. We must stop at the shoe-shop though, and leave Dick's shoes to be mended. Whew, how hot these shoemakers keep it! And the lazy fellows who belong outside—they worked hard enough last summer—sit smoking their pipes, telling stale stories, and yawning all the day. Out, you vagabonds, into the fresh air, and give the honest cobblers the room you occupy; have a game at snowballing, and wake yourselves up. True, you can't get wages for your work at this season, but why not be ciphering at home, or knitting on the seine? Your good old father has been at it every leisure hour, and will sit up till nine o'clock to-night, to hurry it along. Heigho! it is almost sunset now! We must back again to our foddering, and night will overtake us before we are through. And now supper—the simple stories of the little folks, the apples and nuts, the stocking-knitting in one corner, and the seine-knitting in the other, the piece read from the paper and the comments on it, and the "big ha' Bible." brought out, and a glorious psalm read before evening prayers, and thus ends the seasonable day in the country. By nine o'clock the fire is all buried up in the hearth, the lights are put out, and pleasant dreams, if any, haunt the sound sleep of the good country people. Of such are the rural districts.—*New England Farmer.*

From the New England Farmer.

Experimental Farming.

BY SILAS BROWN.

Messrs. Editors:—This will compare with experimental religion; no religion is genuine but experimental religion: and so it is with farming. Our greatest theorists in both, sometimes run in to the regions of moonshine and are deceived by trusting to reflected light.

The chemist may analyze the soil on my farm and discover the deficiencies which are required to constitute a good soil, and point out the ingredient or ingredients which are wanting, theoretically, and I go to work practically, and find my land unproductive as before; or he may analyze the soil in one situation, and find it totally deficient of an element which abounds plentifully at a little distance from the soil analyzed. Many of our farmers have soils varying every few rods, and what would prove a suitable ingredient in the manure for one place would be worthless applied to another.

We dug a well a few days ago for the accommodation of my barn animals; after removing the soil at the surface, we entered a quicksand which continued to the bottom of the well, and proved so troublesome by flowing into it and filling it up, that I now dug one about 50 feet distant from the other; there, after removing the soil, we came upon hard, compact clay gravel, which continued to the bottom, and was pecked up at a greatly increased expense over digging the first well; here was an illustration of the change of soils worth noticing. In this neighbourhood the changes from clay to sand may frequently be seen; bricks have been made within a few rods of a sandy soil without the least appearance of clay.

Thus analyzing soil in any one location will not truly represent the different locations on a farm, or point out the different ingredients required to enrich them, and after all, the only thing to be relied on is the practical application of different kinds of substances to the soil, and decide experimentally which is best. All farmers know that clay with sand, or mud with sand, will improve the soil, but it is very difficult for farmers to go into critical analyzations of soils, even by the help of a chemist, but with doubtful success.

It appears to me to be a difficulty approaching an impossibility, that the best practical chemist can give directions to the farmer how to prepare his manure to suit his different kinds of soils, and fit them to produce different kinds of crops, with any precision. The farmer, after all, has got to learn by a fair trial and accurate observation, how to enrich his land and fit it for any particular crop. As a general rule, in the application of manure, perhaps it would be the best way to follow the example of the poor traveller, who got destitute of money and was obliged to exercise his wits to pursue his journey, and understanding the gullibility of "poor human nature," he concluded to make an attack upon it in its most vulnerable part, and pronounced himself a doctor; he soon found a patient and promised a cure; (a matter of course with certain benevolent people who have a single eye to the benefit of others, and a double one at the contents of their money purses;) the next thing was which way to go to work to do it. At length he hit upon a plan like one who suddenly awakes from a revery, and with true Yankee shrewdness, he went out into the fields and gathered every kind of herb that came in his way and said it was very strange if some one among them would not be a suitable remedy for the disease of his patient.

I believe with the limited state of our knowledge, that in the preparation and application of manures, the better way would be to make a compound of every substance, vegetable and mineral, which would have a tendency to benefit any kind of soil, and like the doctor's prescription, it would be very strange if some of the ingredients should not prove of the right kind.

Wilmington, January, 1853.

Remarks.—This is a common practice, friend B., and one to which we are obliged to resort for want of an exact knowledge of what each particular crop needs. We have no doubt a great deal of medicine is administered in the same way. A mixture is given, that something in it may hit, where a simple article would have been better, had the disease been thoroughly understood. In manuring for a compost heap made up of all sorts of materials usually collected on the farm, do we not apply from it certain substances already abounding in the soil, and which the crop does not need? It seems to us therefore, that analyses, although only approximating the truth, are better than an indiscriminate use of manures. But the farmer must learn to make the analyses himself.

Life a Fountain.—Life is beautifully compared to a fountain fed by a thousand streams, that perish if one be dried. It is a silver cord twisted with a thousand strings, that part asunder if one be broken. Frail and thoughtless mortals are surrounded by innumerable dangers, which make it much more strange that they escape so long, than that they almost all perish suddenly at last. We are encompassed with accidents every day to crush the mouldering tenements we inhabit. The seeds of disease are planted in our constitutions by nature. The earth and atmosphere whence we draw the breath of life are impregnated with death; health is made to operate its own destruction; the food that nourishes contains the element of decay; the soul that animates it, by vivifying, first tends to wear it out by its own action: death lurks in ambush along the path. Notwithstanding this is the truth so palpably confirmed by the daily example before our eyes, how little do we lay it to heart! We see our friends and neighbors depart from among us, but how seldom does it occur to our thoughts, that our knell shall perhaps give the next fruitless warning to the world.