

## ORPHANS' FRIEND.

Wednesday, July 11, 1877.

### THE THREE KINGDOMS OF NATURE.

"Natural objects have been arranged under the three grand divisions of minerals, vegetables and animals." Minerals are natural bodies destitute of organization and life; vegetables are natural bodies endowed with organization and life, and destitute of voluntary motion and sense, and animals are natural bodies which possess organization, life, sensation and voluntary motion. We will first consider minerals.

If we penetrate the earth we discover a remarkable arrangement. We do not find a uniform appearance, as on the surface; we find different substances, as clay, sand, gravel, &c., deposited in beds of various thickness, from a few inches to a large number of feet. These lie almost horizontal except in mountainous countries they take different degrees of inclination, and in sloping hills and valleys they have a winding form. These beds or strata are composed of layers. The first layer is generally a rich black mould, formed almost of vegetable and animal remains. This produces the vegetables and gives support to the whole animal creation. Beneath this is found a thick bed of clay, of which men make bricks, pottery and other articles for the comfort of social life. Beneath this bed of clay are found beds of coal, which we burn.

The principal parts of plants are the root, the herb, tree and fructification or flower and fruit. The roots of plants and trees having nothing pleasing to the eye, the Creator has for the most part hidden from view; they are of great importance in the vegetable economy, they draw moisture from the earth and fix the plant in the place it is to occupy. "They are of many different kinds, and have different periods of duration. They have been known to change their direction, as for instance, they meet with a stone, turning aside from barren into fertile ground." The plant itself consists of a variety of layers and vessels strangely arranged, and adapted for performing all the functions of vegetable life.

The animal kingdom is divided into six classes: Mammalia, Birds, Reptiles, Fishes, Insects and Worms. The Mammalia comprises man, quadrupeds, seals, whales, &c. The class of Birds comprises all such animals as have their bodies clad in feathers. Under the third class are arranged such animals as have a cold and generally naked body and a loathsome smell. They breathe chiefly by lungs, but they have the power of suspending respiration a long time. They can endure hunger for months. Fishes live in the water, and move about by means of fins; they breathe by gills. Insects are so denominated, from the greater number of them having a separation in the middle of their bodies. Worms or vermes are slow of motion, and have soft and fleshy bodies. These animals are distinguished from those of other classes by having tentacula or feelers.

We call attention to the advertisement of the Chowan Baptist Female Institute. It is an excellent school and should be largely patronized.

### MEASUREMENT OF TIME.

A question has been lately addressed to us as to the ancient mode of the measurement of time. Water clocks have been in use in the East for about two thousand years. These have been gradually improved to this present period. The substitution of a weight for the water to turn the wheel is supposed to have been the work of the Saracens, though it may have been introduced some time before, for Archimedes had discovered the advantage of weight in the turning of small machines some centuries earlier. The clepsydra, supposed to have been used among the Chaldeans, was employed extensively by the Greeks and Romans. This instrument measured time by the gradual flow of water through a small orifice. It is still used in China, and anciently had in some instances a musical attachment, by which attention was called to the hour as by the stroke of a bell in our clocks. They were introduced in Rome about 158 B. C. Eighteen years later they were improved by the addition of a toothed wheel and index driven by the water which flowed from the bottom of the jar. Then came the substitution of the weight, as has been already mentioned.

At a very early period men began to divide the day into several portions, and soon the night also. These divisions were at first of about three or four hours each, but after a time the division of night and day into twelve hours each was found to be more convenient, and then there came the necessity for means of measuring each of these divisions of time. The first in use was the dial, the use of which was learned by the Greeks from the Chaldeans. This instrument shows the hours of the day by the shadow of a gnomon or style cast by the sun on a graduated arc. The object in the construction of a dial is to find the sun's distance from the meridian by means of the shadow. This being known the hour is also known. It is true that the shadow can never be so well defined that its limits can be ascertained with astronomical precision. Practically the error may not be of great account. It is believed that the style or pin of the sun dial, which by its shadow indicates the hour of the day, was probably the first astronomical instrument, and it appears to have been in much use among the Egyptians, the Chinese, and even the Peruvians.

It is not necessary to trace the history of the clock from the time of the substitution of a weight for water to turn the toothed wheel. Various difficulties in the construction were afterwards rectified. The ingenuity of our own countrymen has been exercised in bringing the clock to its present state of perfection. The clock, as has been justly said, was the mother of the watch. When it was made, in 1477, by Peter Hele, a clock maker of Nuremberg, it was called his "animated egg," and was considered one of the wonders of the world. The production of this "pocket clock" cost a year's labor; was about the size and shape of a goose egg; varied nearly an hour a day from the true time, and the price was equal to about \$1,500 in gold of to-day. It is needless to trace its improvements from that period to the present, but as in the clock, so in the watch, the American makes are now competing successfully with all others in the markets of the world. Chronom-

eters are watches adjusted to the variations of temperature, and many of American make have proved as accurate as any time pieces ever made.—*Baltimore Sun.*

### CONTENTMENT.

How strange, with so many blessings around us, we should now and then, because of the absence of some particular comfort, give way to a spirit of discontent? How prone to underrate a thousand good things, and complain because we are short even of one thing which we want, and even this may not be for our good. For illustration: A man in good health, with his wife and children all well, and possessing everything necessary for comfort, imagines that he has not as much money as he needs to carry out his worldly plans, and begins to fret and lose his patience, and rob himself of all the luxury which his blessings would otherwise afford. He will not be content with God's providence. This is an every day occurrence. Suppose under such circumstances we were to sit down and open a ledger account, and put down on one side all the positive blessings he now has; then put down on the other side what he has to complain of, and see how much he will lack on this latter side, to bring up the balance.

St. Paul never wrote a truer sentiment than this: "Godliness with contentment is great gain. For we brought nothing into the world, and it is certain we can carry nothing out." Let us ponder this thought, and remembering how soon we must leave this world, and all that we have here, may it beget in us a spirit of true contentment.—*S. C. Advocate.*

### RULES FOR THE JOURNEY OF LIFE.

The following rules from the papers of Dr. West, according to his memorandum, are thrown together as general waymarks in the journey of life:

Never ridicule sacred things, or what others may esteem as such, however absurd they may appear to you.

Never show levity when people are engaged in worship.

Never resent a supposed injury till you know the views and motives of the author of it. On no occasion to relate it.

Always to take the part of an absent person, who is censured in company, so far as truth and propriety will allow.

Never to think worse of another on account of his differing from me in political and religious subjects.

Not to dispute with a man who is more than seventy years of age, nor with a woman, nor any enthusiast.

Not to affect to be witty, or to jest so as to wound the feelings of another.

To say as little as possible of myself and of those who are near to me.

To aim at cheerfulness without levity.

Never to court the favor of the rich by flattering either their vanities or their vices.

To speak with calmness and deliberation on all occasions, especially in circumstances which tend to irritate.

Frequently to review my conduct and note my feelings.

A NEW YORK woman, after wearing a pair of ear-rings for eighty-one years, concluded that jewels were vanity and gave them to her daughter.

### BOOKS.

Books are not made for furniture, but there is nothing else that so beautifully furnishes a house. The plainest row of books is more significant of refinement than the most elaborately carved side-board. Give us a home furnished with books rather than furniture—both if you can, but books at any rate. To spend several days at a friend's house, and hunger for something to read, while you are treading on costly carpets and sitting on luxurious chairs and sleeping upon down, is as if one were bribing your body for the sake of cheating your mind. Books are the windows through which the soul looks out. A house without them is like a room without windows. No man has a right to bring up his children without surrounding them with books if he has the means to buy them. It is a wrong to his family. Children learn to read through being in the presence of books. The love of knowledge in a young mind is almost a warrant against the inferior excitement of passion and vice.—*Selected.*

### THE STONES OF THE PYRAMIDS.

The immense stones used in the erection of the Pyramids of Egypt were obtained from the quarries in the Arabian hills, and were carried to the river and over a bridge of boats. They were then brought forward by means of a causeway, which is said to have been a fine work, with its polished stones and figures of animals engraved upon them. One hundred thousand men were employed at a time, and these were relieved by the same number at the end of three months. A long time was spent in the leveling of the rock on which the edifice stands, and twenty years for the erection of the pyramid itself. The stones were raised step by step by means of a machine made of short pieces of wood, and, last of all commencing from the top, the stones were cemented together with a layer of cement not thicker than a piece of paper, the strength of which is proved by the age of these enormous memorials.—*Selected.*

### THREE HINTS WORTH TAKING.

1. Never attempt to do anything that is not right. Just so surely as you do, you will get into trouble. Sin always brings sorrow sooner or later. If you even suspect that anything is wicked, do it not until you are sure that your suspicions are groundless.

2. When you do attempt anything that is right, go through with it. Be not easily discouraged. Form habits of perseverance. Yield not to sloth and sleep and fickleness. To resist all these will not be easy, but you will feel that you have done right when you get through.

3. Do not waste your money. Perhaps you have very little. Then take the more care of it. Besides helping to spread the gospel, buy some good books and read them well. A good book is one of the best things in the world. If you cannot buy as many as you need, borrow from others and return them safe and sound. Never let a book lie where it may be injured.—*Kind Words.*

Meekness gives smooth answers to rough questions.

### GILT-EDGED BUTTER.

The Philadelphia *Ledger* says that there are at least two dairy-men and butter makers in the neighborhood of Philadelphia who always sell their butter at \$1 a pound, and cannot supply the demand even at that price.—One of them attributes his success to three points: Good food to his cows, uniform temperature of fifty-eight degrees in the milk-room, and neatness, cleanliness and daintiness at every step, from the time when the milk is obtained until the dollar is paid for the pound of butter. He feeds his cows often but not much at a time, on white clover and early mown meadow hay, which he cuts fine, moistens, and mixes with wheaten shorts. Pastures and meadows are kept quite free from weeds. The milk-room is kept at a temperature of fifty-eight degrees by flowing spring-water.—*Selected.*

### CHRISTIANITY IN TURKEY.

The first Christian church in Constantinople was founded in 1846; there are now seventy-six in the Turkish Empire, about a third of which are self-supporting, and all self-governing. Four "Evangelical Unions" have been formed for mutual counsel and aid; one at Harpoot, in Mesopotamia, of twenty-six churches; another in Southern Asia Minor of twenty-three churches; another in Central Asia Minor of eight churches; and another in Bithynia of eleven churches. Connected with these churches are 330 members, and congregations numbering 13,000, with a population of over 18,000 native Protestants.—*N. C. Presbyterian.*

### THE THREE FRIENDS OF MAN.

The dog, the horse, and the elephant have, with great appropriateness, been designated the three friends of man. The dog, however, seems entitled to the first place in this relation, although the other two animals have been known to evince the utmost affection for their keepers or masters. Nevertheless, the fidelity of the dog stands out in bold relief from that of any other quadruped, and is more self-sacrificing than that of the elephant or the horse. The dog is at all times the faithful slave and companion of his master; while the other two members of the triad at times rebel against the authority or treatment of their owners or keepers. Yet they all stand in more friendly relationship to what is termed the lord of creation than, perhaps, do any other three of the lower animals.—*Frank Leslie's Sunday Magazine.*

"Don't write there," said one to a lad who was writing with a diamond pin on a pane of glass in the window of a hotel. "Why?" said he. "Because you can not rub it out." There are other things which men should not do, because they can not rub them out. A heart is aching for sympathy, and a cold, perhaps a heartless, word is spoken. The impression may be more durable than that of a diamond upon the glass. The inscription on the glass may be destroyed by its fracture, but the impression on the heart may last for ever. On many a mind and many a heart sad inscriptions are deeply engraved, which no effort can erase. We should be careful what we write on the minds of others.