

exceptions to the general degeneracy of the race. Children are not born angels, and we often find perversity and deformity in place of wings. It is well for us to contemplate the freshness and beauty, the innocence and purity of childhood. It is pleasant to teach the "young idea how to shoot;" but when the twig has a constitutional tendency to twist in its growth and run into knots, it is not so easy to rear it to comely proportions. It is inspiring to teach where there is a desire to learn; but attempts to force knowledge through thickened skulls into empty craniums is hard and dogged work. To command the lively attention of those hungry for the crumbs of knowledge is pleasant employment; but when pupils prefer peanuts to geography and doughnuts to mathematics, teaching is not so very delectable after all. It is satisfactory to mark progress in wisdom, and to watch the unfolding of mind; but it is not particularly inspiring to discover that your pupil is more eager for a surreptitious bite at an apple, or a "dig" at the ribs of his companion, than for an honorable position at the head of his class. However, whatever may be the pros and cons of "school-keeping," Vacation is a blessed "institution" for the teacher.

Nor is vacation less appreciated by the student. What boarding-school miss, or what collegian—be he verdant freshman, wise sophomore, conservative junior, or reverend senior—but has impatiently counted over and over again the days which preceded vacation. His vacation brings with it the gentle embraces of his mother, more esteemed by him than medals of gold or wreaths of laurel, with all his "college honors." May this vacation indeed be a happy one for us all; and may we all take in a good stock of new life and strength, to conduct successfully our next campaign against ignorance. May none have occasion to say that the realization of the pleasures of vacation is less than the anticipation.—*Abridged from the Educational Monthly.*

Denominate Numbers.

The following, or some similar analysis of denominate numbers may be produced, under the guidance of the teacher, by any class of intelligent pupils.

After the classifications, denominations, and tables, the pupil should be made familiar with descending and ascending reduction, so as to describe and analyse the processes readily. He should also observe, that the reductions of denominate, vulgar, and decimal fractions, are merely the applications of reduction to fractions.

In changing denominate numbers to vulgar fractions, besides reducing the quantities, the pupil must be taught to compare them. To teach the process of comparing quantities, such exercises as the following will be found useful. Compare 12 with 20, in which the pupils must observe that 12 is $\frac{3}{5}$ of 20, or 20 is $\frac{5}{3}$ of 12. In changing denominate numbers to decimals of a higher denomination, the pupil should see that there is involved, first, the expression of each denomination as the fraction of the next higher, second, the changing of this vulgar fraction to a decimal.

Changing fractions to denominate whole numbers, involves descending reduction, with the additional process of changing improper fractions to whole or mixed numbers.

In the combinations, the elements of addition are simple addition and reduction ascending. Subtraction involves simple subtraction where the scales differ. Multiplication is simple multiplication, ascending reduction, and simple addition. Division is simple division, descending reduction and simple addition. All the combinations require more or less of the reduction of fractions.

It should be kept in mind, that the more operations we can refer to one principle, the less the memory is burdened and the more comprehensive is the knowledge. The aim of the teacher should be: first, to let the pupil observe all the facts and operations; second, to let him arrange, classify and refer these facts and operations to principles already known. Knowledge newly acquired should be interwoven with what is already known—

should be seen to grow out of principles and facts with which the pupil is already familiar.

DENOMINATE NUMBERS	
1. Classification	1. Form { 1. Simple 2. Compound
	2. Use { 1. Currencies { 1. Federal Money 2. Sterling Money, etc 2. Weights. { 1. Troy 2. Avoirdupois 3. Apothecary 3. Measures { 1. Of length—Long—Cloth 2. Of Surface—Square 3. Of Volume—Solid 4. Of Capacity { 1. Wine 2. Beer 3. Dry 5. Time Measure 6. Angular Measure
2. Operations	1. Reductions { 1. Descending { 1. Of Entire Quantities { 1. Vulgar 2. Of Fractions { 2. Decimal 2. Ascending { 1. Of Entire Quantities { 1. Vulgar 2. Of Fractions { 2. Decimal 3. To change Denominate Numbers to { 1. Vulgar Fractions { 2. Decimal 4. To change { 1. Vulgar } Fractions to Denominate 2. Decimal } Numbers 5. To change Quantities from one Current Weight or Measure to another
	2. Combinations { 1. Addition { 1. Of Entire Quantities 2. Of Fractions 2. Subtraction { 1. Of Entire Quantities 3. Multiplication { 2. Of Fractions 7. Division.

New York Teacher.

SCIENCE.

Description of an Ancient Sepulchral Mound near Newark, Ohio.

By O. C. MARSH, F.G.S.

In the first volume of the Smithsonian Contributions Messrs. Squier and Davis have ably described the most important of those ancient monuments of the Mississippi Valley, which render that region so interesting to the student of American archaeology. By discarding vague speculation, which had been the prominent fault of most previous investigators, and adopting that rigid method of research inaugurated so successfully by Scandinavian antiquaries, these authors were enabled to embody in their work all that was valuable in previous accounts, and to add much new and important information concerning that ancient population of this country, who have left behind them so many imposing structures. The subsequent researches of Squier, Latham, and others, have thrown additional light upon this interesting subject, so that at the present time the "Mound-builders" can no longer be regarded as an unknown people, although both tradition and history are silent in regard to them.

Few of these ancient monuments of the West have attracted more attention than the group of 'Enclosures,' or 'Forts,' near Newark, Ohio, which have long been celebrated on account of their great extent, and remarkable regularity. They consist mainly of elaborate earthworks, in the form of a circle, octagon, and square, and enclose an area of about four square miles, on the upper terrace between two branches of the Licking River. They were well described by Atwater, in 1820, who regarded them as works of defense; and subsequently by Squier and Davis, who, however, considered them sacred enclosures. Scattered over the same plain, and crowning the neighboring hills, are numerous tumuli, or mounds, evidently erected by the same people that built the larger works.

While on a geological excursion through the West, during the last autumn, the writer spent several days at Newark, examining these various monuments in company with George P. Russell, Esq., of