

## SPONTANEOUS GENERATION OF PLANTS AND ANIMALS.

An earnest discussion is going on in the Paris Academy of Sciences in relation to the question whether plants ever grow except from seed, and whether animals are ever created except by the process of being born from parents or hatched from eggs. Mr. Pouchet, a professor at Rouen, and a correspondent of the Academy, contends that he has observed the generation of microscopic plants and animals, under circumstances which precluded the possibility of their coming from either seed, eggs or parents. But the correctness of his conclusions is denied on the ground that eggs or seed may have been floating in the atmosphere, and may thus have entered his solutions in which the organisms which he saw made their appearance. We find in the *Presse Scientifique des Deux Mores* an account of an experiment tried by M. Pasteur to determine whether these germs come from the air.

He partly filled a number of small, hollow glass with globes putrefiable liquor, such as albuminous water, yeast, sugar-water, to which was added a little white of egg, milk, urine, &c., and then melting the necks of the globes with a blow-pipe, he drew them out into long slender tubes, which he sealed hermetically at the end. He then boiled the contents of the globes to destroy the life of any germs which they might contain, after which he opened them under different circumstances more or less favorable for collecting the dust from the atmosphere. Some of the slender necks of the globes were straight so that the dust from the atmosphere might fall into them freely, while others were bent in numerous curves to obstruct the entrance of the dust. Some of the globes were opened by breaking off the ends of the necks, a portion of them in the deep cellars of the academy, and a portion in the open court where there was a free circulation of air. In those which were not broken there was no growth of mold or other plant, and no appearance of animal life, while in those broken in the open air the organisms were more numerous than those opened in the cellar.—From these experiments M. Pasteur concludes that the living plants and animals found in putrefiable liquors come from eggs or germs floating in the air, and are never the product of spontaneous generation.

M. Pouchet, and the other advocates of the doctrine of spontaneous generation, reply that the existence of plants and animals has been produced, under the requisite conditions, without any ancestors. The weight of opinion in the academy is against the idea of spontaneous generation.

**ARITHMETICAL PUZZLE.**—If four dogs, with sixteen legs, can catch twenty-nine rabbits, with eighty-seven legs, in forty-four minutes, how many legs must the same rabbits have to get away from eight dogs, with thirty-two legs, in seventeen minutes and a half? We have seen sums in the books nearly as sensible as this.

## PHYSICAL EXERCISE AT SCHOOL.

A proper combination of physical with intellectual exercise and enjoyment, will endear the school-house to the young, as mere intellectual pursuits never can that old brown building, with its dilapidated steps, its marred interior, its stiff and plain, and unattractive walls, broken windows, its general air of original bad taste, and superadded desolation. Why is it that when ever you have returned to the home of your boyhood, your feet have so spontaneously sought its threshold as one of the true Meccas of the soul? What thrilling memories were those which stirred your heart to its depths, and filled your eyes with the luxury of tears? Not merely—if I may infer the experience of others from my own—not merely the memories of books and recitations, and daily intellectual tasks, nor of teachers and fellow pupils, as associated with these, though these, too, have their place, and their inestimable value in your thoughts. But blending inseparably and happily with these come the memories of school boy sports and games; again you

Feel the thrill of the daring jump,  
And the rush of the breathless swing;

again you recall the emulous activity, and courage of the playground; again you feel yourself returning from its exercises with the fresh glow of health upon your cheek and the fresh energy which hearty play imparts to all the life-currents in your brain; and again you recall, with a fresh sentiment of interest and kindness, those with whom you have mingled in those school-boy sports and enjoyments, and wish you could meet them all again, wherever they may have wandered away in the devious paths of human effort and experience, could take them once more by the hand with the old familiar grip, and ask them "What cheer?" and bid them "God Speed!" in the wearisome, and the perilous battle of life.

We cannot make the place of school education too dear to the young mind. We cannot connect it with too many of these sources of a true youthful enjoyment, which can be spared from home. We cannot afford to do without the play ground itself, with its amplest practicable means of sport.

## POETRY.

Poetry is the breath of beauty, flowing around the spiritual world, as the winds that wake up the flowers do about the material. The love of moral beauty, and the retention of the spirit of youth, which is impelled in the indulgence of a political taste, are evidences of a good disposition in any man, and argue well for the largeness of his mind in other respects. For this is the boast of poetry above all other arts; that, sympathizing with everything, it leaves no corner of wisdom or knowledge unrecognised, which is a universality that cannot be said or predicted of any other science, however great.

## CHANGE IN THE MEANING OF WORDS.

How many words men have dragged downwards with themselves, and made partakers, more or less, of their own fall! Having originally, an honorable significance, they have yet, with the deterioration and degeneration of them that used them, or those about whom they were used, deteriorated or degenerated too.—What a multitude of words, originally harmless, have assumed a harmful meaning as their secondary lease; how many worthy have acquired an unworthy!—Thus, "knave" meant once only no more than lad (nor does it now, in German, mean more;) a "villain" was no more than a peasant; a "boor" was only a farmer; a "varlet" was but a serving-man; a "menial" one of the many or household; a "churl" but a strong fellow; a "minion" a favorite. Sylvester says,—"Man is God's dearest minion." "Time-server" was used 200 years ago as often for one in an honorable as in a dishonorable sense, "serving time." "Conceits" once had nothing conceded in them; "officious" had reference to offices of kindness and not of busy meddling; "moody" was that which pertained to a man's mood, without any gloom or sullenness implied. "Demure" (des moeurs—of good manners) conveyed no hint, as now, of an over-doing of the outward demonstration of modesty. In "crafty" and "cunning" there was nothing of crooked wisdom implied, but only knowledge and skill; "craft" indeed, still retains, very often, its more honorable use—a man's craft being his skill, and then the trade in which he is skilled. And think you that the Magdalen could ever have given us "maudlin" in its present contemptuous application, if the tears of penitential weeping had been held in due honor by the world.

## FROZEN FISH COMING TO LIFE.

It is well known that several species of fish may be frozen quite stiff, and several miles, and when put into cold water, will revive. Several artificial ponds have been stocked with fish carried from a distance in a frozen state; and yet it is stated that the celebrated Dr. John Hunter, having tried several experiments to restore frozen fish, always failed to do so. A recent French experimenter in this line states that he has discovered the reason of this. He asserts that the tissues of fish and frogs may be frozen and the creatures may be restored to activity, but if their hearts become ice-chilled, they never can be reanimated.—Perhaps the hearts of fish are surrounded with fat containing a great amount of glycerine—a substance which is not frozen at quite low temperatures. Some of our readers living in the northern sections of our country can easily settle this question during the present winter. This is a topic of no small interest to students of natural history. It is well known that some fish can be kept longer than others while frozen, and then be revived; the above may account for the phenomenon.—*Scientific American.*