

THE PHENOMENA OF LIFE.

LIVING CREATURES EXISTING LONG PERIODS WITHOUT AIR.

A Curious and Unsolved Problem of Nature—Mysterious Power of the Fakirs of India.

Responding to a correspondent's question whether science teaches that any living creature can exist for any length of time, say six months or a year, absolutely without air, the Hartford Times says:

Our correspondent's question touches one of the most interesting and wonderful realms of nature. Nothing known to man is more wonderful than the mysterious principle of life. Nothing yet revealed is more interesting than the wonderful way in which that principle can be, and in many instances is, preserved, not for weeks, but for months, and even for years, under conditions which have to all appearance already caused actual death. Indeed, nature herself provides, for certain animals that do not migrate, a winter condition of torpidity, in which all the bodily functions are lowered, and in some cases seemingly suspended, as in death. Breathing, like the action of the heart and the circulation, is for considerable periods in very cold weather actually suspended. The hibernation of bears is analogous to the full torpidity of some of the smaller quadrupeds, as the woodchuck, the bat, the marmot, the prairie-dog, the dormouse, and some others. The birds—such as are not birds of prey—can fly away, and follow the summer to warmer climates; but some of the quadrupeds, that live by preying on the smaller creatures of summer, or the vegetation that disappears with warm weather, cannot migrate, and for them nature has provided a state, or condition, that practically serves the purpose of a change of country or climate. It is to be noted that it is not the animals with hoofs that migrate, but certain kinds that have claws. Others, whose claws and instincts enable them to live, as beasts of prey, through our northern winters, as the panther and lynx and wildcat, neither migrate nor hibernate. Hawks, owls, etc., do not need to migrate. Dr. Ware's "Philosophy of Natural History" says:

"Among the lower classes the state of torpidity is more universal and complete, and they are capable under its influence of enduring much greater degrees of cold. Many of them do not breathe, circulate, or digest at all. Some reptiles, as tortoises and frogs, dive beneath the mud of ponds and rivers, lizards and serpents retire to their holes, to the crevices of rocks and to trunks of trees. If the cold be indefinitely continued, they seem capable of continuing torpid an indefinite time. Spallanzani kept toads and salamanders in an ice-house for three years, during which they exhibited no signs of life. At the end of this time, on exposure to warmth, they revived."

Living frogs and toads have been disclosed, in the work of blasting, securely imbedded in the heart of bed-rock. Observations on these phenomena, as yet, lack the fullness and precision which would be required by scientific considerations, and it does not appear to be positively known, in any case, that these creatures, thus living, perhaps for ages in the deep heart of the rock, were absolutely deprived of air. But the indications do seem to point to that marvel. A more scientific method was followed in the case here mentioned by Dr. Ware:

"Five specimens of a green toad were once found in the center of a tree nineteen inches in diameter. Every exertion was made to discover a communication between the external air and the cavity, but without success. Every part of it was probed with care, and water kept in each half for a considerable time, without its passing into the wood."

The toads revived from what appeared to be a state of actual death on exposure to the air and sun. Flies, and some other insects, seem to die, in winter, and dry up; but they revive with warm weather. In Professor Brocklesby's "Views of the Microscopic World" we find fully substantiated cases of infusorial animalcules, smaller than the motes of dust that float about a beam of sunshine in an empty garret and revealed only in the compound microscope, and which, after being taken from their drop of water and thoroughly dried up, have still retained for months, the principle of life, and been restored to activity when restored to their proper conditions. The microscopic "wheel-animalcule" has thus remained dried up and dead for four years—not a breath, any more than in the Sphinx—and yet been restored to life on being restored to water. A fine speck of impalpable dust in the air is as visible as a "wheel-animalcule"—a creature whose water-wheel nevertheless draws in, by its little vortex, a multitude of still more infinitely minute life for its food.

The mysterious power of some human beings—a certain few of the fakirs of India—to suspend, for an indefinite time by a voluntary effort, the actions of the bodily functions, seems to belong to another and higher class of phenomena. Two or three remarkable cases illustrating the reality of this amazing fact have been published within the last thirty or forty years in England, attested by such arrays of military and other names, as witnesses, that it seemed as difficult to reject as to accept the stories. Of one case, narrated by Sir Claude Wade, a resident at the court of Runjeet Singh in Lahore, in 1837, that authority was himself an eye-witness. The body was buried three feet below the floor, in a cell under an apartment that was closed up with brick and mortar, and sealed at the keyhole with the prince's private seal. No aperture existed through which food or air could be admitted. The place was guarded, night and day, by four sentries, and was daily inspected by the officers of the disinterment, at the end of forty days, "the body, tied up in a linen bag, which had become milderived, was found in a cell three feet below the level of the floor in a wooden box, upon which was a padlock, sealed like the other. There was no sign of life, except some heat about the head. The body was bathed in lukewarm water, plugs of cotton and wax, with which the nostrils and ears were filled, were taken out; and after a variety of other appliances the fakir began to revive, and in the course of an

hour was able to talk with those about him freely, though feebly."

Another case, strongly attested by a dozen or more British military officers in India, was of a fakir who was locked up in a sealed box, buried, and a mound piled over the place, on which barley was sown. A guard of four was on watch, night and day, at the mound. The barley grew, and at the end of (if we remember aright) about two months, the mound was opened, the man unharmed, and found to be somewhat like a mummy in appearance, but was soon able to sit up and speak, and soon recovered.

A Remarkable Caterpillar.

There is a genuine case a living creature becoming converted into a vegetable! It occurs in a caterpillar that lives in New Zealand and in Australia. There are several specimens at the College of Surgeons, London, and elsewhere. We see a caterpillar as hard as if it was carved out of wood, and from it is growing a long stem. The history of it is as follows:

The caterpillar eats a fungus, or the sporules of a fungus, and these immediately begin to grow in its inside. The insect feels uncomfortable, and possibly thinking it is going to turn into a chrysalis, buries itself in the ground and there dies.

The fungus goes on growing and absorbing the entire contents of the skin taking the exact form of the creature. Having done this, it throws out a shoot, and this always at a certain fixed spot—namely, at the joint at the back of the head. Several foreign naturalists possess specimens which they have kindly shown and explained.

This caterpillar is found also in China, where it is used as food.

Nature, frequently prone to produce in inanimate substances models of her own living creations, has produced a plant that resembles a snake in a most remarkable manner. This is a simple house-look, which in certain stages of its growth remarkably resembles a snake.

A hairy viper was once seen in the Algerian country, near Drariah, which resembled an enormous caterpillar. It was of a brownish-red color, and its length was about twenty-two inches. The moment it saw that it was observed, it glided into the brushwood, and all attempts to discover it were unavailing.

Curious Facts About Cancer.

A writer in London Truth makes some observations in regard to the causes of cancer of a curious and highly interesting character. These observations are based upon certain data furnished by eminent French physicians. The writer claims that the disease haunts low-lying river sides and the mouths of streams and cities. Among the authorities, Raspail, when in Holland some seventeen or eighteen years ago, was struck with the prevalence of the disease in the low-lying districts, and still more along the mouths of the Scheldt and the Rhine. This investigation at first ascribed the frequency of the malady to the electrical conditions produced by the metallic plates which the women of the different Netherlands localities wear on their heads to support their tulle lace and muslin caps; but he also found that in the tidal regions of the Seine, where the soil is alluvial, there was a great deal of cancer, although no metal entered into the head gear. Pursuing his observations at the mouth of other rivers he was led to believe that conditions of soil and atmosphere which developed scrofula were also favorable to cancer, a malady which is apt to first show itself in a glandular region. The writer in Truth also cites Rousseau, who used to advise patients with a cancerous tendency to try and live where the soil was dry, the air brisk and the aspect sunny. A number of prominent cases are given of people who have died in Paris near underground water courses and along the Seine, and the prevalence of the disease in such low-lying districts as Athlone, Ireland, and Dartford, the Marshes, Woolwich and Chelsea in corroboration of the above theory.

A Crow Roost.

The learned men at the Smithsonian Institution, with others interested in the migration of the birds, are studying a crow roost on a bank of the Potomac, above the Chain bridge, Washington. Thousands of crows from all parts of the country thereabouts go to and from this "roost" daily.

As it lies directly west of Washington, the consequence is that beneath whose path the city lies are seen flying west in the evening and east in the morning. The latter flight occurs in the dawn, and of course is witnessed by few persons, but the returning movement is conspicuous. It begins early in the afternoon and continues until dark.

During all those hours a steady, ceaseless stream of the great black birds passes along, hundreds and thousands of them, not in flocks, but in a continuous train. On fair days, the crows fly high and firmly; on windy days there is often much trouble, obliging the birds to tuck and shift, until they are sometimes so heavy that they are forced to alight on the housetops to gather strength to proceed.

It happens that most of the strong winds, particularly of February and March, come out of the West, thus directly opposing the progress of such birds as pass over the city. Such "roosts" are well known in various parts of the eastern United States; but the impulse whose potency forces such long daily journeys upon the birds is a mystery as yet unexplained.

Fox Worship.

Among the Japanese, it is said, is a mythical person called Uza. Uza was deified, and honors supposed due him are daily offered to his accredited servants, the foxes. This adoration is accorded in the belief that Uza (sometimes called Inari) discovered and cultivated the rice plant, and all through Japan may be seen shrines or temples for fox worship. It is one of the prevailing superstitions, and the priests of fox temples bring offerings every morning to the two foxes or badgers dwelling securely underneath the small building.

At the shrines are two gilded foxes. Before them is placed a tray, upon which are small bowls of rice, and foxes molded in sugar, all supposed to be most gratefully received.

SCIENTIFIC AND INDUSTRIAL.

A bureau of commercial science has been instituted in France. Its purpose is to bring together information bearing on commerce, foreign industries, etc.

Luminous paint has been applied to harness with desirable results. At night the position of the horse is clearly indicated, and it does not appear that the animal is alarmed in the slightest by his bright equipment.

Two books formed with sheet-iron leaves have been sent to the Amsterdam exhibition by an English firm, as an illustration of the perfection to which the process of rolling sheets of iron has been brought. The leaves are said to be no thicker than "good-toned paper."

Leather wheels are made in France for railroad and other cars. The inventor of the process is M. de la Roche Untanned buffalo hides are cut into strips, and these are built up into solid disks, which are strongly held together by two iron rings after they have been subjected to hydraulic pressure.

A textile manufacturing firm in Boston has adopted an electrical work indicator, which records the movements of all the looms and other machines within the works. The indicator occupies little more space in the office than a common clock would fill, yet a glance at it will tell how all the operations throughout the large works are progressing.

From the observations taken at Colon by the engineers engaged on the Panama Inter-oceanic canal, M. de Lesseps finds, according to his paper read before the academy of sciences, Paris, that the great earthquake wave caused by the recent disturbances at Java, would appear to have made its way across the Indian and Atlantic oceans, round the Cape of Good Hope, to the east coast of Central America in about thirty hours.

A company with a capital of \$2,500,000, partly English, bought nearly 1,000,000 acres of swamp land in Louisiana last spring, and had the most comprehensive system of improvement by draining and cultivating begun. The territory lies in Vermilion, Cameron and Calcasieu parishes, and has a frontage on the Gulf of 100 miles, with a depth of thirty miles. Great quantities of sugar may be raised upon it.

SELECT SIFTINGS.

The "Bay Psalm Book," published at Cambridge in 1640, was the second book printed in British America. It went through seventy editions.

In France, until the introduction of postage stamps, and the rule of double postage for unpaid letters, it was considered ill-bred to prepay a letter addressed to a friend.

In Paris there are men who make a living by collecting lined papers from the hospitals, pressing the oil from the lincseed and selling the linen to the paper manufacturers.

The ways in which the memory begins to fail are often very curious. There is a case on record of a man who could never remember words beginning with "d," and another person attached no idea whatever to the figure "5."

Recent experiments in German schools have shown that the difficulty in reading black letters on a white ground compared to that of reading white on a black ground is as 421 to 496, and, therefore, the slate and the blackboard will probably fall into disuse in the empire.

According to a recent authority a Japanese fish, known as Fuku, is so poisonous that death follows almost instantaneously after eating only a moderate piece of it. It is not infrequently the cause of death among the lower classes, who believe it to be possessed of certain marvelous properties, on account of which they risk the danger of being poisoned.

On the top of the Washington monument, at a height of four hundred and ten feet, great quantities of bees and wasps have been seen, and, strange to say, rats even find their way up there after crumbs from the luncheon of the workmen. Three large rats found there made their exit by jumping down the interior of the column, finding sure death at the bottom.

Penetrated to the Bone.

Alderman John Baxter, Toronto, Canada, avers that St. Jacobs Oil will penetrate to the bone to drive out pain. I know it, for I have tried it; it hits the mark every time.

A man's brain weighs three and a half pounds. A woman's is somewhat lighter, but of finer quality. That is what enables her to taste lard in her neighbor's pastry.

Young men, or middle aged ones, suffering from nervous debility and kindred weaknesses should send three stamps for Part VII of World's Dispensary Dime Series of books. Address World's Dispensary Medical Association, Buffalo, N. Y.

Ohio has fifteen and three-tenth per cent. of the railway mileage of the country.

You have tried everything for your Heart Disease? No, sir. Allow me to show you Dr. Graves' Heart Regulator, been in market thirty years, great many good testimonials from its use. Only \$1 per bottle at druggists.

The Crow Indians are estimated to be worth \$2,500,000 in land.

A treatise on may be taken at liver and bilious disorders with Dr. R. V. Pierce's "Pleasant Purgative Pills." Mild yet certain in operation; and there is none of the reaction consequent upon taking severe and drastic cathartics. By druggists.

There are 2,623 telegraph poles and 917 miles of wire in Washington.

Dr. Graves' Heart Regulator cures all forms of Heart Disease, nervousness, sleeplessness.

HYPOCHONDRIA.

The Mysterious Element in the Mind that Produces Vague Apprehensions—What Actuates the Nervous System.

The narrative below by a prominent scientist touches a subject of universal importance. Few people are free from the distressing evil, which hypochondria, which they call it at all times and are fed by the very flame which they themselves start. They are a dread of coming derangement caused by present disorder and bring about more suicides than any other one thing. Their first approach should be carefully guarded.

Editors Herald: It is seldom I appear in print and I should not do so now did I not believe myself in possession of truths, the revelation of which will prove of inestimable value to many who may see these lines. I have been a struggling experimenter for many years. I was conscious of a want of nerve tone. My mind seemed sluggish and I felt a certain falling off in my natural condition of intellectual acuteness, activity and vigor.

This is the same vague feeling, which an innumerable number of other people feel, which like myself are physically below par, but unlike others I paid no attention to these annoying troubles, attributing them to overwork, and resorting to a glass of beer or punch, which would for the time invigorate and relieve my wearying condition.

After awhile the stimulants commenced to disagree with my stomach, my weariness increased, and I was compelled to resort to other means for relief. If a physician is called in he invariably tells another physician to prescribe for him, and he prescribes as he is advised to; so I called a physician and he advised me to try a little chemic food, or a bottle of hypophosphates. I took two or three bottles of the chemi-food with no apparent benefit.

My lassitude and indigestion seemed to increase, my food distressed me. I suffered from neuralgic pains in different parts of my body, my muscles became sore, my bowels were constipated, and my prospects for recovery were not very flattering. I stated my case to another physician, and he advised me to take five to ten drops of Magend's solution of morphia, two or three times a day, for the weakness and distress in my stomach, and a blue pill every other night to relieve the constipation.

The morphia produced such a deathly stupor that I could not take it, and the blue pill failed to relieve my constipation. In this condition I passed nearly a year, wholly unfit for business, while the effort to think was irksome and painful. My blood became impoverished, and I suffered from the want of an appalling sense of misery and general apprehension of coming disaster. I passed sleepless nights and was troubled with irregular action of the heart, a constantly feverish condition and the most excruciating tortures in my stomach, living for days on bread and gruel, and, indeed, the digestive functions seem to be entirely destroyed.

It was natural that while in this condition I should become hypochondriacal and fearful suggestions of self-destruction occasionally presented themselves. I experienced an insatiable desire for sleep, but on retiring would lie awake for a long time, tormented with troubled reflections, and when at last I did fall into an uneasy slumber of short duration, it was disturbed by horrid dreams. In this condition I determined to take a trip to the mountains of the Rocky Mountains, and to try to improve and so returned home with no earthly hope of ever again being able to leave the house.

Among the numerous friends that called on me, was one who had been afflicted somewhat similarly to myself, but who had been restored to perfect health. Upon his earnest recommendation I began the same treatment he had employed, but with little hope of being benefited. At first I experienced little, any relief, except that it did not distress my stomach, and I remained above my food and had done. I continued its use, however, and after the third bottle could see a marked change for the better, and now after the fifteenth bottle I am happy to state that I am again able to attend to my professional duties, sleep well, my digestive functions are normal, and my mind is free from the terrors that I eat. I go from day to day without a feeling of weariness or pain, indeed, I am a well man, and wholly through the influence of H. H. Warner & Co.'s Tippecanoe.

I consider this remedy as taking the place of medicine in the treatment of all diseases marked by debility, loss of appetite, and all other symptoms of stomach and digestive disorders. It is overwhelmingly superior to the tones, bitters, and dyspepsia cures of the day, and is certain to be so acknowledged by the public generally. Thousands of people to be cured, to premature graves with these serious diseases, that I have above described, and to all such I would say: "Do not let your good judgment be governed by your prejudices, but give my stomach a fair and patient trial, and I believe you will be rewarded by a perfect restoration to health, but you will also be convinced that the medical profession do not possess all the knowledge there is embraced in medical science." 468 Tremont street, Boston, Mass.

Good News From Texas.

Mr. Thomas A. Howard, of Honey Grove, Fannin county, Texas, under date of April 6, 1885, writes as follows:

I have been suffering during several years from severe illness, and a general breaking down of my physical system, and have tried the treatment and prescriptions of many doctors in far and near, and traveled to the Hot Springs and other mineral springs, for their remedial qualities, drinking the waters and bathing systematically in their healing depths, but all to no avail, as I steadily failed in health; and although supported by my physicians that my ailments and weaknesses were the result of kidney disease of a dangerous character, they could give me nothing to cure me. During the past two years my sufferings at times were dreadful, and I had the most indescribable pains in the regions about the kidneys, the prostrations of which were so severe as to render it impossible for me to sleep. While in this deplorable and discouraging condition I was persuaded to try Hunt's Remedy, and after using less than half a bottle my great sufferings and anxieties of pain were entirely relieved, and I could sleep better and longer than I had in two years before, and although I am now on my feet, the only improvement is very remarkably that I regret that I did not know of the wonderful curative powers of Hunt's Remedy before, as it would have saved me years of suffering. I heartily recommend it to all afflicted with any kidney disease or disease of the urinary organs.

"Hit My Case Exactly." Please allow me to speak in the highest terms of "Hunt's Remedy," for it hit my case exactly. I had kidney and urinary trouble pretty bad. I was recommended Hunt's Remedy. I took one (dissipative) as directed. I felt a decided change at the first dose. I took two bottles, and have felt like a new man ever since. Please receive the sincere thanks of myself for the benefits which I sought vainly for and found only in Hunt's Remedy.

I will cheerfully give this same opinion of Hunt's Remedy to any one who wishes it, addressing: ROBERT D. ARCHER, 811 Linnaud street, Philadelphia, Pa. March 14, 1885.

In 1850 the English-speaking population of the globe will be 1,000,000,000. That Terrible Tragedy! ONE OF THE CHIEF CAUSES OF SUDDEN DEATH IS DEPRIVED.

As details of the Rathbone wife murder are received they add to its horror. Colonel Rathbone, the murderer, was with President Lincoln when Booth shot him, and was himself stabbed by the assassin. The event was followed by nervous prostration, which caused, says Senator Harris, of Albany, painful dyspepsia, which growing constantly worse in the fall, finally culminated in "blues" and periodical brain disorders. Dyspepsia made this man a monster!

Experts tell us that the brain is the soundest of all organs, and they credit the alarming increase of insanity to derangements of the stomach. What a fearful condition the food will be, and bad blood has an especially evil effect upon the brain. Dyspepsia is a dangerous disorder, and yet it is far too often neglected when it might be checked or cured. H. S. Benedict, for thirty-five years express agent up in Troy, has often related how for a long time his life was an unbearable burden. He says he would rather die than go through his old dyspeptic experiences. And John Elting, the widely-known Old Fellow of Hudson, informs us that what began in sour stomach, heartburn, lampy sensations, and occasional constipation, resulted in confirmed dyspepsia, intense heat and distress in the stomach, belching of wind, hard and bloated bowels, loss of appetite, constant dizziness, sick headache, and a despondent, irritable condition of mind.

These gentlemen can realize, as can thousands of others, to what violence confirmed dyspepsia may drive a man! Happily for them they escaped mental frenzy by the timely use of Dr. David Kennedy's Favorite Remedy, of Hudson, N. Y. A simple, elegant, non-alcoholic preparation, which in the past twenty years has cured in 90 per cent. of cases. It has a very large sale and is regarded by physicians as most valuable for stomach, malarial, liver, kidney, urinary, female, and blood disorders.

If we would escape the full penalties of dyspepsia, we must arrest it before it becomes chronic and sets the blood and brain on fire.—Kingston (N. Y.) Freeman.

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30 DAYS' TRIAL DR. DYER'S ELECTRO-VOLTAIC BELT and other ELECTRO-GENIC APPLIANCES are sent on the same principle as the BEST. Young or Old, who are afflicted with WEAKNESS, LOST VITALITY, WASTING, and all such ailments, send for circular containing complete particulars to HEALTH, Vision and MANHOOD restored. Send at once for Illustrated Pamphlet free. Address: Voltaic Belt Co., Marshall, Mich.