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EARTH—LIFE:

A MONTHLY JOURNAL AND RECORD

Of all such Facts, Principles and Discoveries as relate to the improvement and preservation of earthly existence.

Edited by "PARALLAX"

(Editor of "The Zetetic," and Author of "Zetetic Astronomy" and other scientific works.)

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ONE PENNY.

"To the Religious we say—LIVE: that you may see the fulfilment of Prophecy. To the Irreligious we say also—LIVE: that you may have time to test your opinions in practice, and to witness the results of human progress."

He who does his best to remain on earth, and to improve his condition continually, even should he fail, will be wiser and better for the attempt, and none the less fitted for eternity."

"THE PRINCE OF THE POWER OF THE AIR."

An Inquiry, a Discovery, and an Experience.
A SCIENTIFIC SERMON.

MANY years ago my attention was arrested by the passage in Ephesians, Chap. 2, v. 2:- "The Prince of the Power of the Air."

Practical investigation had at a very early period satisfied me that in many parts of both the old and the new Testament, besides spiritual and moral teachings, there lay a deep philosophical meaning, which had reference to the elements of the natural world around us, and to their influence on animal and vegetable existence. That there was in fact a *substratum* of ancient scientific truth analogous to that so rapidly developing in our own day by chemical and electrical investigations. That this ancient and sacred philosophy had been neglected, overlooked, forgotten, and lost; and that what we now call discoveries are, strictly speaking, recoveries and restorations of the past; that there is no truth which is new, that falsehood alone permits of invention and is therefore necessarily evanescent and temporary in its duration, whilst Truth is eternal—without beginning and without end, without birth without death—"the same to day, yesterday and for ever."

In the passage quoted, "The Power of the Air," the meaning is very slightly, if at all, obscured. Though hidden beneath a stratum of general expression, the covering is so transparent that it is not difficult to see that, whatever spiritual and moral meaning it may have, it has one almost as clearly scientific as can be found in any modern work on elementary chemistry. Leaving out, for the present, any consideration of "The Prince," we may ask what is the "Power of the Air."? The air we breathe, and in which we live, is known to be a compound, principally, of two gasses, or elements. OXYGEN and NITROGEN; the composition of any given volume being, in round numbers:—

OXYGEN.....One Part.
NITROGEN.....Four Parts.

But nitrogen although constituting four-fifths of the air is comparatively inert. It has little active part in the world. It is almost passive, and confined in its influence to the power of slightly combining with animal and vegetable compounds, and simply increasing their substance. But *oxygen* (only constituting one fifth of the atmosphere,) is, in every sense, an *active* element. It is the chief cause of combustion, respiration and decomposition. It consumes all the millions of tons of fuel—coals, wood, turf, oils of our lamps, and tallow and wax of our candles, which at great labour and cost, and sacrifice of life, are obtained for our use. It corrodes and destroys nearly all the products of human industry. All our works in iron and other metal are rusted and broken up; our devices in wood and stone; the monuments we raise, the buildings we erect, from the simplest hovel to the greatest temple, however firmly and ingeniously wrought, sooner or later succumb to the corroding and destroying influence of atmospheric OXYGEN.



Almost everything which enters into the composition of the physical world is acted upon by this never-resting element. So almost universal is its activity that in the few instances of resistance to its power, the substances are specially designated as noble and invaluable. Gold and silver because of their capability of resisting corrosion or oxidation are called "Noble Metals."* Diamonds, rubies, emeralds and other crystalline substances, are called "jewels" and "precious stones" partly it is true because of their scarcity, but chiefly through their power of resisting decay, and preserving their brilliancy and colour through all times and circumstances. Whatever is beautiful and at the same time incorrodible is considered a valuable gem. The same beauty without the power to resist decay is not prized to the same degree. Decay, corrosion, rusting, fermentation, combustion, decomposition and destruction are chiefly processes of oxidation, the result of the great affinity which oxygen has for so many of the earth's constituents. This oxygen is the principal destroying agent. It is the active element of the atmosphere, or in other words "The Power of the Air."

Against the action of this oxygen, man has learned by experience to protect his work by saturating and coating it with various compositions, paints, enamels, oils and varnishes of every kind; but he has not, so far, been able to protect himself, by any other means than food and clothing. It is the oxygen or "Power" of the air, which, by its action in the lungs and the skin, decomposes and consumes the body creating atrophy hunger and

* The present noblemen of the world are simply the "Favourites of Fortune." They possess the earth, the foundation of substantial wealth, and have the advantages of education, position, and arbitrary honours; and many of them are hardy, brave and generous; to a great extent unselfish, and thoroughly patriotic, but numbers among them are as feeble, frail, and suffering as ordinary mortals. When practical science has made us acquainted with the nature and properties of all the elements of the earth and of the numerous subtleties which act in intellectual and moral nature, a new nobility will arise, a people upon whom the battling elements of the world, its winds and fogs, and rains; its snows and cyclones; its extremes of heat and cold; its abrupt and trying changes; its storms and pestilences, will have little or no effect. Who can live upon the earth's surface enjoying its innumerable beauties without subjection to the "Power of the Air"—to the corroding effect of the oxygen of its atmosphere. Such a people will be more than a nobility; and far greater than the world's present aristocracy: they will be demi-gods—wise, healthy, good, happy and long-lived. Those who have wealth and liberty and privilege at command, and yet are subject to evil from "every wind that blows" are only an artificial nobility. Could they superadd to their present advantages, the capability of resisting the influence of atmospheric elements, they would become a true and real nobility—the gold and silver and jewelry of the earth, examples before the multitude, to excite them to leave their grovelling lives of crime and darkness, for a higher and happier existence.

thirst, and the necessity for food and drink. If food and drink are withheld the body dies, consumed like the fuel in a furnace or the oil in a lamp by the decomposition of its substance, the burning up of its elements through the corroding power of the oxygen of the atmosphere. This corrosion or consumption of the body generates many forms of debility and numerous diseases; all which would be prevented if the system could be protected against this destroying influence of atmospheric oxygen,—this terrible "Power" of the air.

It has long been known that different kinds of food and drink, have different properties in supporting the body and protecting it against oxidation. But food and drink alone have proved insufficient to defend the system for any considerable length of time, hence, the necessity arises for some other process; some other element or compound than ordinary food supplies, to shield the body from oxidation and destruction.

Although several substances exist in nature, which have this power to some degree, yet all, *exceptions*, are found to be somewhat objectionable in their subsequent influence and effect. That one is the element *Phosphorus*. It has been used by many Physicians during the last century for the restoration of health and strength; but not for their preservation. As a life and health *Preserver*, it is even more valuable than it is as an article of the *Materia Medica*. Many very extraordinary cures have been recorded in medical works, as wrought by the internal administration of *Phosphorus*. Some of the Continental Physicians have called it "A Divine Remedy." The celebrated French Physiologist, *MARELLE*, in his "Formulæ," says, "Phosphorus would seem to have effected almost resurrections." "It has been employed with success in instances where vital action was nearly extinguished." In many other cases "the results were almost wonderful." Cases are related in "Hoeper's Medical Dictionary," of patients even "when comatose, pulse faltering, wrists cold, and dissolution fast approaching, recovering by the use of Phosphorus."

Although the modern *Materia Medica* includes many valuable remedies for human afflictions, it is a matter of certainty that in all cases where the animal vitality is failing phosphorus is decidedly superior to every other remedy at present known. It will work effects such as nothing else will produce, and it possesses the great advantage of not causing, when its use is relinquished, the slightest re-action or depression.

With such unprecedented testimony in its favour the question naturally presents itself, "why is so valuable an element so little regarded and so

seldom prescribed?" The only answer which can be given is:— that a certain difficulty has been found in so preparing it that its action may be kept under perfect control. Hitherto it has been used in solution in almond and olive oils, in Sulphuric Ether, in rectified Alcohol, in Chloroform, and in several other substances; but however valuable it has been found in all the hitherto known methods of its preparation, certain irregular results have been experienced, which have led physicians to neglect it for general purposes, and to employ it only in extreme cases, and after every other remedy has failed. But the Author has now discovered an exceedingly simple method of dissolving it in water; so that its invaluable action on the human system may be realised without any of those drawbacks which previous modes of administration have almost invariably produced.

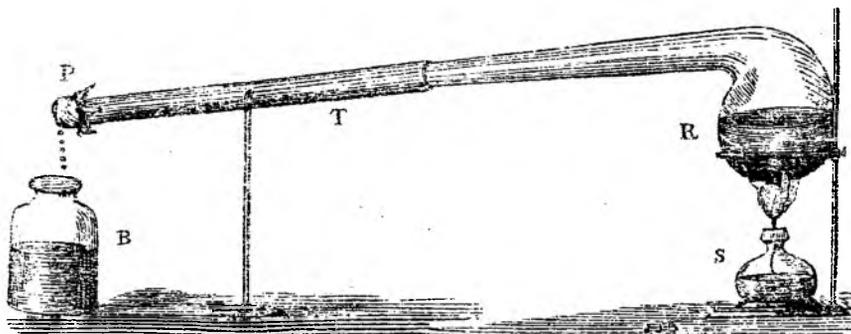
The watery solution of phosphorus is at once assimilated and diffused through the system, so that its action is general and perfectly safe. It may be taken by the youngest child, and in the extremest decrepitude. Strictly speaking it is not a medicine but simply a VITALISING FOOD.

When the brain and nervous system fail in power it is because the phosphorus which is an important element in their composition has been

wasted. To take phosphorus, then, may be considered as simply feeding the brain and nerves, as simply giving back to them the element they have lost and thus maintaining the "balance of power." To restore to the brain the element it has lost during the "wear and tear" of life, is simply to nourish and preserve it, and therefore phosphorus dissolved in water may properly be called *brain-food*, — *nervæ-diet*. Just as flesh and corn are requisite for the nourishment and preservation of the general body, so is phosphorus absolutely required for the support of the brain and nervous system. Without such elements both body and brain become diseased, and in the end decay and die.

So valuable are the properties, and so extensive is the field in which this new preparation may be employed for the relief of human suffering, that the Author feels it a duty to make known to the world, without reserve or reward, the method of preparing it, and the best general mode of using it; in the hope that a great amount of present affliction may be removed, and in the future prevented.

The following diagram represents the process by which free phosphorus is rendered perfectly soluble in water:—



R is a retort of glass or earthenware, resting upon a stand, or any ordinary support; S, a spirit lamp; T, a long glass tube perfectly luted on the neck of the retort; P, a cap of blotting or filtering paper, tied on the end of the tube; B, a bottle for receiving the product as it drops from the tube.

Let perfectly pure phosphorus be put into the body of the retort, which may be filled within half an inch of the neck, with cold water. When the apparatus is fixed, the tube T perfectly luted, and the cap tied on, apply the spirit lamp, S, (an ordinary gas jet may be used, or a sand-bath,) until the water begins to boil, after which keep the contents of the retort gently boiling; the steam which passes over will carry with it a portion of pure phosphorus in an unoxidized state, and will

condense in the long tube, T. The fluid arising from the condensed vapour will be a *perfect solution of pure and free phosphorus in distilled water*.

The object of the cap of blotting or filtering paper tied over the end of the tube at P, is twofold; first, it keeps out the air, which otherwise would enter and oxidize the phosphorus, converting it into hypophosphorus acid, and thus prevent the formation of an aqueous solution of *free phosphorus*; and, secondly, to filter the phosphorus water before it drops into the bottle below. It also serves to keep back any excess of solid phosphorus which may come over during the distillation, and condense in the tube.

The amount of phosphorus to be put into the retort may be as follows:— To one pint of water

add one scruple (or twenty grains) of purified phosphorus; continue the boiling until about two ounces of liquid remain in the retort. To preserve the phosphorus in its free or active state the receiving bottles should be very small, so that they can be filled quickly and securely corked, by which the water will be protected against the oxidising action of the air. Of this liquid from one teaspoonful to a wine-glass may be taken, according to age, night and morning.

Thus by one of the simplest chemical processes,—by gently distilling free phosphorus with water, in a glass or earthenware retort, and condensing the vapour *out of contact with the air*, a liquid product is obtained, which, from its remarkable action on the human frame, in increasing its vitality and functional power may indeed be called a “water-of-life.” It is, to all intents and purposes, a true and literal “life water,” surpassing, beyond all comparison, the so-called *Aqua vite* of the alchemists. The degree also to which it improves and invigorates the perceptions, the memory, and the capability of reasoning upon, and understanding, whatever is presented; as well as from the manner in which it operates in developing and intensifying the moral and emotional powers, it may truly be called an *aqua sancta*,—a new and chemically generated “holy water.”

That our medical men of every school, our greatest chemists, physiologists, philosophers, and men of science generally; as well as inventors of, and those who adopt, the numberless methods and preparations which are advertised in all directions and in every conceivable manner for the cure of the “Ills which flesh is heir to” suffer and decay, and pass away from amongst us, as greatly and as quickly as the least educated in society, is matter of positive proof as well as of regret; and although it may be conceded that much good has been done by every system which has yet been proposed, there is certainly still a deficiency; still humanity suffers; and it is painfully evident that something more is urgently wanted—something more simple, more decided in its action, less of the character of ordinary physic or medicine, and more of the nature of a preserving and protecting aliment. This important desideratum medical science has, so far, failed to supply. Let us hope that the preparation now described is the beginning of a series of improvements in the right direction, and of victories over the natural world.

The action of this solution of free phosphorus on an organised being is very simple, easily observed and traced, and very beneficial in several respects. We have seen that atmospheric oxygen is the natural or chemical “power of the air;” that it oxidises, corrodes, or burns up and destroys nearly all the substances of the earth, and that living organised beings are especially affected by its action. It is true that a certain degree of oxida-

tion is essential in the present state of existence, but when that degree is exceeded numerous forms of disease arise.

When the phosphorus water is taken into the system, it is quickly absorbed into the general body of circulating fluids. The excess of oxygen which has passed into the circulation, and which is corroding and breaking down, or oxidising the most susceptible tissues, forming morbid products, and creating symptoms of disease, is chased and attacked by the soluble phosphorus. It is at once seized and fixed into phosphoric acid. The phosphoric acid thus formed, in its turn unites with the carbonates and other feeble salts of potash, soda, ammonia, lime, &c., which exist in the blood and fluids generally, converting them into neutral phosphates. These phosphates have all a soothing, healing and analeptic influence. The whole system is brought to a calm and healthful condition. Whilst a portion of the absorbed phosphorus is hurrying down and imprisoning the invading oxygen, another portion, on the principle that “like assimilates like,” enters into the composition of the brain and nervous system, and thus increases the mental and moral powers, or rather the development of such powers to their fullest degree.

Another very important effect of aqueous free phosphorus is, that after taking it long enough to convert all the alkalies, earths &c., in the fluids into neutral phosphates, if its use is still continued, the lime phosphate which has during years of existence gradually deposited in the body ossifying and hardening its various organs, and choking up millions of capillary vessels, is converted into superphosphate, which is a soluble compound, capable of being absorbed and carried out of the system in the ordinary *excreta*. Thus in advanced life, and in all cases of excessive ossification, the system is gradually relieved of the rigidity, inactivity and solidity which characterise “old age.” Thus free phosphorus taken by the healthy and vigorous operates to preserve that health and vigour, and, if taken by the weakly and suffering, the destroying enemy—“the Power of the air,” the ever active oxygen, is hunted down, its evil influence arrested, and the sufferer enabled to recover from the assault. How long this condition of healthy life may be continued no real philosopher will venture to predicate.

(To be continued.)

Those who feel an interest in the subject of this article, will also feel a desire to prepare the aqueous solution of phosphorus for themselves. But should any of our readers find it inconvenient to do so we will instruct them where to obtain the preparation in any quantity and at little cost. Address the Editor of “Earth--Life,” 24, Leighton Road, Kentish Town, London.

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