

the gist of the work, and, taken collectively, would form almost a complete abstract of it. To each is subtended several minor sections, each taking up a sentence or clause from the main paragraph and explaining its meaning in detail.

Swedenborg teaches that the blood as well as its circulation is "triplicate": 1. The spirituous fluid (or animal spirits). 2. The white or purer blood, (the lymph) and 3. The red blood, each having its own vessels and separate circulation. In considering the cause of the pulse, he far outstrips his contemporaries. In this connection a valuable treatise on motions, and especially that of undulation, is given.

The growth of the chick in the egg, forms a centre about which is grouped the story of the formation of the embryo in the womb. We are instructed how the spirituous fluid, the vice-gerent of the soul, forms to itself a material envelope. "The most pure fibrils are first produced, then the vessels of the purer blood, and finally the vessels of the red blood; one of which is prior to the other, and then, as they are compounded, one acts with the other." We at once see that this is not an ordinary treatise on embryology.

The chapter on Foetal circulation draws much from the preceding, and not only do we read of the circulation of the red blood, but also of the cycle of the purer blood and animal spirit in the infant before birth.

The Heart of the Turtle is given as an instance of the structural differences necessary in an animal that lives both on land and in water; also the difference in the circulation of the blood.

What Swedenborg says regarding the coronary arteries would revolutionize the prevailing ideas about these vessels, were it generally known. He shows by conclusive evidence that they are in reality veins, that the heart muscle obtains its blood from within, by means of the lacunae entering its walls, and which empty into the superficial vessels during the systole or contraction of the heart, and that the blood is then sent through these vessels into the aorta and right auricle, respectively.

The Motion of the Adult Heart next receives attention. Its proximate cause is the ingress of blood from the vena cava, and its maintaining cause is found in the cerebrum, cerebellum, and medullae. In describing the heart muscle, Swe-

denborg finds opportunity not only to trace the intricate gyres of its fibres and complicated layers, but also indicates why they are so placed.

The Introduction to a Rational Psychology prepares the way to a study of the soul itself. It includes the Doctrine of Series and Degrees mentioned above, and the most simple substance of the body, which is the spirituous fluid, describing how it gathers together the requisite substances in lower degrees in the formation of its body, which constitutes a compound series.

The greater part of the article on the motion of the brain, is taken up in proving that it coincides with that of the lungs, instead of the heart beat, as is the opinion of all whom he quotes. The nerves descending from the cortex of the brain are not simple threads, but hollow tubules which carry the spirituous fluid and its connate spirits to every minutest part of the body. Each fibre emerges from its own cortical gland, which is like a little heart or corculum, and the animation or expansion and contraction of these collectively, produces the animations of the brain.

The final chapter of Part II seems to be one of several preliminary essays on the Soul, which appear here and there throughout Swedenborg's works. In the preface of the *Animal Kingdom*, he thus characterizes it: "Not very long since, I published the *Economy of the Animal Kingdom*, a work divided into distinct treatises, but treating only of the blood, the arteries, and the heart, and of the motions of the brain and the cortical substance thereof; and before traversing the whole field in detail, I made a rapid passage to the soul and put forth a prodromus respecting it. But on considering the matter more deeply, I found that I had directed my course thither too hastily and too fast. . . . I took the step, impelled by an ardent desire for knowledge."—(A. K., No. 19.) It considers the soul and its vice-gerent the spirituous fluid, the *mens* or higher mind, and the *animus* or common sensorium, and the intercourse between the soul and the body. This is a brief resume of what is contained in the work. We have but skimmed the surface, but a careful perusal will well repay the trouble it entails. The *Economy of the Animal Kingdom* is a mine of scientific wealth.

HARVEY FARRINGTON.

Philadelphia, Pennsylvania.

---

## NOTES.

---

Rev. John Worcester sends us a translation of an important passage from *The Last Judgment Posthumous*, bearing on the subject of Degrees, which we

here give. In this we find it stated that besides the three spiritual atmospheres there are also three derivative spiritual atmospheres below the natural

sun which enable man to think and feel. We offer this passage to our readers for careful study and thought. It is as follows :

## DEGREES.

“ There are three natural atmospheres arising from the sun of the world, and three spiritual atmospheres arising from the sun of heaven, which is the Lord. The three natural atmospheres arising from the sun of this world, are the purer ether, which is universal, from which is all gravity ; the middle ether, which makes a vortex about the planets in which also are the earth (possibly we should read *lux*, with Dr. Tafel) and the satellites, from which is magnetism ; and the lowest ether, which is the air. By these three atmospheres are held together all the corporeal and material things of the world, which are compounded in accordance with those degrees. The three spiritual atmospheres arising from the sun of heaven are those in which are the angels of the three heavens ; in the two higher are the angels in the Lord’s celestial kingdom ; in the third and in the first natural, which is the pure ether, are the angels in the Lord’s spiritual kingdom ; in the two following atmospheres, which are the middle ether and the lowest ether, which is the air, are men while they are in the natural world.

But it is to be known that the atmospheres arising from the sun of heaven, which is the Lord, properly speaking are not three but six, three above the sun of the world, and three below the sun of the world. The three below the sun of the world constantly follow the three natural atmospheres, and enable man in the natural world to think and feel. For the atmospheres arising from the sun of the world have not life in themselves, because they arise from a sun which is pure fire ; but the atmospheres arising from the sun of heaven, which is the Lord, have life in themselves, because they arise from a sun which is pure love and pure wisdom. The atmospheres arising from the sun of the world, which is pure fire, cause the things of the world and of the human body to subsist, and to be held together in connection, and not to be changed except according to the laws of natural order. This is the difference between things in the natural world and those in the spiritual world.”—*L. J. Post*, p. 100.

The Report of the Swedenborg Society of London is just received. In a future number we wish to more fully notice the discussion of the question of the publication of Swedenborg’s Scientific Works. We can here give only the action taken by the Society.

The Rev. J. R. Rendell, B. A., of Accrington, moved as follows :

In view of the fact that this Society in 1862 undertook to continue the work of the Swedenborg Association, and by resolution passed by its Annual Meeting in 1888 affirmed that the publication of Swedenborg’s Philosophical and Scientific Works is one of the legitimate uses of the Swedenborg Society, and of there being a widely expressed wish both in this country and in the United States that these works should be reprinted, *Resolved*, That the Committee be instructed to put aside the sum realized from the sale of the publications presented by the Swedenborg Association, estimated at £300, to form a nucleus for a fund to be employed for the purpose of printing and publishing the Philosophical and Scientific Writings of Swedenborg, and that contributions be invited for that purpose, and that a separate account be kept of this fund, and devoted to the specific object of their publication.

Mr. Clowes Bayley then proposed the following amendment :

“ To omit all the words after ‘instructed,’ and to substitute the following words : ‘To proceed with the publication of the Philosophical and Scientific Works of Emanuel Swedenborg as and when they deem it desirable to do so, and to cooperate, if possible, with the friends of the New Church in America.’ ”

The amendment was put from the chair and was carried, and also when put as a substantive motion.

It gives us great pleasure to record this action of the Swedenborg Society, which insures the full cooperation of all interested in this great work, and which will greatly hasten the publication of these works.

An interesting and instructive article on “ Series and Degrees from the Scientific Point of View,” by George W. Worcester appeared in the April number of the *New Church Review*. In this article the author teaches the necessity of a knowledge of Degrees, showing that without this knowledge the mind dwells in the lowest degree and falls into naturalism. Again he says : “ By means of the natural sciences Swedenborg was prepared by the Lord from his earliest youth for the great mission he filled ; and that without a clear and intelligent comprehension of the doctrine of degrees one cannot understand interiorly the doctrines of the Church revealed to the world through the writings of Swedenborg.”

The writer thinks the method of illustrating degrees by colored diagrams fails to accomplish the purpose. We personally, and others, have found it beneficial. Dr. Burnham’s book follows this method and in our estimation it is the best exposi-

# THE NEW PHILOSOPHY.

REV. JOHN WHITEHEAD, EDITOR AND PUBLISHER.

—PUBLISHED MONTHLY.—

Entered at the Postoffice at Urbana, Ohio, as Second Class Matter.

## TERMS:

One Dollar per annum, payable in advance. Special rate for ten or more copies, Fifty Cents each.

Address all communications and remittances to REV. JOHN WHITEHEAD, 506 South Main street, Urbana, Ohio.

Publication Office: THE URBANA TIMES CITIZEN OFFICE.

## AGENTS FOR ENGLAND.

New Church Depot, 18 Corporation street, Manchester.

James Speirs, 1 Bloomsbury street, London.

Academy Book Room, Burton Road Brixton, London, S. W.

tion of the subject yet produced. We, however, agree with the writer that scientific illustrations are also needed to aid in elucidating the subject.

The writer takes high ground in regard to the reliability and authority of Swedenborg's science and philosophy. He says: "The position, then, which I take, is this: Swedenborg's system—or rather let us say the system of science, philosophy, and theology which the Lord has revealed to the world through Swedenborg—must be taken as a whole, and his scientific and philosophical works form the ultimate of the higher spiritual." "In the light of order, and of successive and simultaneous degrees, there is no other view. Reject the scientific and philosophical works as not forming a part of this revealed Divine Truth, and the very foundations of the whole system are thrown down—for his system forms the nexus between the Word and Nature, and if the scientific and philosophical part of the system be rejected as not inspired, then the system has no ultimate—a *reductio ad absurdum*. For it has been shown that nothing exists without its ultimate, and the ultimate is the complex continent of all."

Whilst we agree with the writer in believing in the truth of the philosophical system of Swedenborg, we are not aware that Swedenborg either directly or by inference, teaches that his scientific and philosophical works were inspired or revealed. It seems to us that such a broad and sweeping claim should be made only after a thorough examination of the whole ground. We think that in his theological works will be found statements that modify, qualify, and correct minor details of his former works. Whilst believing that in his scientific and philosophical studies he was led in a wonderful manner to perceive truth in the plane of nature, we are not prepared to make the claim as sweeping as is made by the writer of this paper.

The position of the writer toward the doctrine of

evolution is not made clear. He speaks of great breaks in the evolution of living forms, both vegetable and animal. Whether he believes in the evolution of one form from another within these degrees is not clear, nor how all these lower forms were gathered together into man; whether man and species of plants and animals were produced by distinct acts of creation, or by a process of evolution one from another. As the writer promises further articles on these subjects, we shall look forward to them with interest. According to our study of Swedenborg, his teaching all favors the doctrine of the creation of species by direct influx from the spiritual world, and not by an evolutionary process from lower forms.

We are pleased to find in the paper so strong an affirmation in favor of Swedenborg's scientific and philosophical system. The thorough study of his works in the spirit of this writer, will bring forth clear light on many obscure points, and by this study the system will become more favorably known to the world at large.

"Everyone who thinks from clear reason sees that the universe was not created out of nothing, for he sees that not anything can be made out of nothing; since nothing is nothing, and to make anything out of nothing is a contradiction, and a contradiction is contrary to the light of truth, which is from Divine Wisdom; and whatever is not from Divine Wisdom is not from Divine Omnipotence."—D. L. W., 283.

"Everyone who thinks from clear reason sees also that all things are created out of a Substance which is Substance in itself, for that is *Esse* itself, out of which everything that is can have existence. And since God alone is Substance in itself, and therefore *Esse* itself, it is evident that from this source alone is the existence of things. This has been seen by many, because reason causes it to be seen. Yet they dared not confirm it, fearing lest they might thereby come to think of the created universe as God, because from God; or to think of nature as self-originated, and consequently of the inmost of nature as what is called God. For this reason, although many have seen that the existence of all things is from God alone and out of His *Esse*, yet they have not dared to go beyond their first thought on the subject, lest their understanding become entangled in a so-called Gordian Knot, beyond the possibility of release. Such release would be impossible, because their thought of God, and of the Creation of the universe from God, has been in accordance with time and space, which are properties of nature; and from nature no one can have a perception of God and of the creation of the universe, but everyone whose understanding is in any interior light can have a perception of nature and of its creation out of God, because God is not in time and space."—D. L. W., 283.