The New Philosophy

A Journal devoted to the exposition of the philosophy presented in the scientific, philosophical and theological works of Emanuel Swedenborg.

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Some Opinions of Swedenborg's Scientific Works.

IN VIEW of the movement now being made for the translation and publication of Swedenborg's Scientific Works, we desire to call attention to these works, and give some opinions that have been expressed of their value.

The common opinion of Swedenborg is that of a mystic. Even highly educated men have but vague ideas of the nature of Swedenborg's teachings. His theology is little known or understood; and many are not aware of his great merit as a scientist and philosopher. The greater part of those who are devotedly attached to his theological system are almost entirely ignorant of his teachings in science and philosophy, notwithstanding the fact that these are the foundation on which his theology is built. To study the theology of Swedenborg without his science and philosophy is like building a house in the air and not on the solid rock of earth. It is, indeed, true that in his theological writings there are many teachings of science and philosophy which aid in the understanding of the spiritual truths therein given, but to gain a firm and solid basis we must acquire a knowledge of his science and philosophy from his works written and published on these subjects.

Nature is the basis on which interior things rest. The facts of nature come to our knowledge through the five senses, and these knowledges form the first or lowest plane of the mind. On these, again, the reason works to search out causes by which the rational plane of the mind is developed. On this, again, rest the spiritual and celestial planes, and inmostly in these the Lord Himself rests. If we take away the foundation of fact the superstructure falls. If we take away the intermediate rational plane, the spiritual has no vessel to hold it in form, and to give it power. Hence, we may see the value of a true science of facts and a true philosophy of causes, and these two are found in a pre-eminent degree in Swedenborg's Scientific and Philosophical works.

One of the papers in our first number pointed out the deplorable fact that many of these works have not been translated and published. And of those that have been published, nearly all are out of print and are inaccessible.

It is natural to conclude from this fact that the New Church holds these writings of Swedenborg in little estimation. This has been for some time past undoubtedly true of most of its members, but there have been a few devoted persons who have regretted this neglect, and who have labored for a change. Their efforts seem to promise a renewal of interest, which we fervently hope may bear abundant fruit.

The scientific works of Swedenborg are eminently rational, and are designed to cultivate that faculty by the investigation of nature. These rational truths are necessary, not only to the natural welfare and development of man, but they are also essential to his spiritual welfare. Rational truths are meant by the leaves of the tree of life mentioned in the Apocalypse, which were for the healing of the nations, and of these it is said in The Apocalypse Revealed, "They who are in evils and thence in falses cannot be healed by the Word, because they do not read it, but if they have sound judgment they can be healed by rational truths." Hence may be seen the value of rational truths in leading man into better states of life, thereby preparing him to produce good fruit, as the leaves prepare the juices of a tree to produce fruit.

Speaking of the use of the genuine principles of science in the New Church, Dr. R. L. Tafel, in "Words for the New Church," says: "After the Ancient Church, science became secularized and divorced from the Church, and it has remained so ever since; and it is only since the time of Swedenborg, who, in his scientific and philosophic writings, supplied the missing link between analytic science and revelation, that natural science, and at the same time, philosophy, have been brought back to their allegiance to the Church."

"The importance of the scientific and philosophic writings of Emanuel Swedenborg, has not yet been sufficiently recognized by New Churchmen. For, as the knowledge of correspondences is the means by which the minds of men are led from the clouds of the letter to the glory of the internal sense, so the philosophic and scientific writings of Swedenborg are the means by which the votaries of science who do not

believe in the letter of the Word, may be led to a knowledge of the doctrines of the internal sense, and thereby to a belief in the Divinity of the letter. This is what is meant by 'the leaves of the tree of life in the midst of the street of the New Jerusalem being for the healing of the nations.' (Apoc. xxii, 2). The 'nations' who did not read the Word of God, could not be healed before the descent of the New Jerusalem; but they can be healed now, by an acknowledgment of those theoretic principles by which Swedenborg, in his analytic career, was led from the circumference to the center. These principles, among which is the doctrine of discrete degrees, are of universal application, both in the natural and in the spiritual universe; and they are able to lead the scientific man from the scientific and philosophic writings of Swedenborg to his theological and spiritual works."

"These scientific and philosophic writings are also meant, in part, by the 'rod of iron,' concerning which, in Apoc. xii, 5, it is written, that the 'man-child' brought forth by the woman 'shall pasture or feed the nations with a rod of iron'; for by the 'rod of iron,' is meant, on the one hand 'the natural sense of the Word,' and on the other 'the natural light or lumen of man,' and hence the light of natural science, 'in which two the power of truth consists.'"

"Wherefore the Church of the New Jerusalem will grow in power in this world, only in proportion in which it cultivates, not merely the theological, but also the scientific and philosophical writings of the inspired Swedenborg." p. 540-541.

Prof. Thomas French, Jr., of the Cincinnati University, in an address before the Ohio Association of the New Church, some years ago, said of Swedenborg as a Man of Science:

"Swedenborg, the scientist, is, strictly speaking, inseparable from Swedenborg, the philosopher. His science is eminently philosophical, his philosophy is equally scientific. To him science was a means to an end. This end was wisdom. But upon attaining the end in the fullest degree, he gave himself up to the attainment of the means in the fullest degree."

"Before I had given any attention to Swedenborg's scientific writings, my impression was that they could contain little of interest or import to the scientist of the nineteenth century, otherwise the name of Swedenborg would figure in our text-books and scientific literature, as do the names of other great men who have materially contributed to the world's knowledge. I now assert that this impression has been wholly effaced, and has given place to surprise, coupled with a trifle of indignation that Swedenborg's name does not figure in our scientific text-books and literature. It is easy to prove by evidence which no court could resist that his name deserves this place of honor and must receive it so soon as justice asserts herself in the matter."

"Clissold and Wilkinson agree in pronouncing the 'Principia' a book of the future. Speaking at this time, over thirty years later than they, I venture to call the 'Principia' a book for the present and the future; a book for the present in view of the prominent doctrines of modern science which it anticipated, a book for the future in view of fundamental principles therein contained which must prove of inestimable service in the solution of intricate and exalted problems with which science is not yet prepared successfully to grapple. To be more explicit, among the doctrines of modern science which are either anticipated or more or less definitely inculcated by the 'Principia' are: 1. The atomic theory. 2. The solar origin of the earth and her sister planets. 3. The undulatory theory of light. 4. The nebular hypothesis. (The article by Professor Holden, of the U. S. Naval Observatory, in the October issue of the *North American Review*, forcibly testifies to Swedenborg's claims in this important regard, and is to be numbered among the indications that our author's name is soon to be more familiar in scientific circles). 5. That heat is a mode of motion. 6. That magnetism and electricity are closely connected. (Swedenborg's theory of magnetism, while having points of resemblance to that of Ampére, yet differs essentially from it.) 7. That electricity is a form of ethereal motion. 8. That molecular forces are due to the action of an ethereal medium."

"Vast and far-reaching as has been the growth of knowledge in all branches of human learning during the last hundred years, we see as yet only a feeble beginning of that which is to be; all threads belonging to the vesture of science are not yet gathered up and hence are not yet woven into its present texture. The present dictum of science is not its final dictum on any subject. Positions now strenuously held will be given up and new positions taken. The time is coming when all attempts to solve the overshadowing Life problem solely by aid of the interactions and transformations of natural forces in material organisms, will be met with the same ridicule as attempts to maintain perpetual motion or to square the circle. For the new principles requisite to the solution of this problem, science may yet bow in gratitude to that calm philosopher whose scientific works have lain buried for a century beneath the weight of his later writings. Foremost among the principles thus needed is that which forms the central idea of the 'Principia;' to wit: that the universe was

created not from nothing but from the Infinite; that the Infinite is present in its greatest and least parts as the prime source of their substance and the soul of their energies."

"In view of the facts set forth in this brief and imperfect sketch, it is reasonable to expect that the star of Swedenborg's fame as a man of science will yet be generally recognized as one of the first magnitude, and that his name in this connection will descend to posterity side by side with those of Kepler, Newton and La Place."

During the decade 1840–50 the Swedenborg Scientific Association of London, England, published several of Swedenborg's Scientific Works, including The Principia, The Animal Kingdom, and The Economy of the Animal Kingdom.

The work of this Association stimulated a deep interest in these works, and some very interesting reviews appeared from time to time.

We quote the following from The Monthly Review as given in The Intellectual Repository for July, 1844:

"In conclusion we record our opinion, positively and not relatively; wholly and without reservation, that if the mode of reasoning and explanation adopted by Swedenborg be once understood, the anatomist and physiologist will acquire more information, and obtain a more comprehensive view of the human body, and its relation to a higher sphere, than from any single book ever published, nay, we may add, than from all the books which have been written (especially in modern times) on physiology."

"Swedenborg reasons not on any hypothesis, not on any theory, not on any favorite doctrine of a fashionable school, but on the solid principles of geometry, based on the immutable rock of truth; and he must and will be considered at no distant period the Zoroaster of Europe, and the Prometheus of a new era of reason, however at present the clouds of prejudice may intervene, or the storms of passion, obscure the corruscations of his intellect."

The Forceps of November 16th, 1844, in reviewing "The Animal Kingdom" says:

"This is the most remarkable theory of the human body that has ever fallen into our hands. . . We have carefully read through both volumes of it and have gained much philosophical insight from it into the chains of ends and causes that govern in the human organism. What has the world been doing for the past century, to let this great system slumber on the shelf, and to run after a host of little blue bottles of hypotheses which were never framed to live for more than a short part of a single season? It is clear that it yet knows nothing of its greatest men. The fact is, it has been making money, or trying to make it, grubbing after worthless reputation, until it has lost its eyesight for the stars of heaven and the sun that is shining above it."

"Emanuel Swedenborg's doctrine is altogether the widest thing of the kind which medical literature affords, and cast into an artistical shape of consummate beauty. Under the rich drapery of ornament which diversifies his pages, there runs a framework of the truest reasoning. The book is a perfect mine of principles, far exceeding in intellectual wealth, and surpassing in elevation, the finest efforts of Lord Bacon's genius. It treats of the loftiest subjects without abstruseness, being all ultimately referable to the common sense of mankind—unlike the German transcendentalists, this gifted Swede fulfils both the requisites of the true philosopher; he is one to whom the lowest things ascend, and the highest descend, who is the equal and kindly brother of all." . . .

"The philosophical unity of the work is astonishing, and serves to unlock the most abstruse organs, such as the spleen, thymus gland, supra-renal capsules, and other parts upon which Swedenborg has dilated with an analytic efficacy which the moderns have not even approached; and of which the ancients afforded scarcely an indication. Upon these more mysterious organs, we think his views most suggestive and valuable, and worthy of the whole attention of the better minds of the medical profession. Of the doctrine of series, since called by the less appropriate term, 'homology,' he has afforded the most singular illustrations, not confining himself to the law of series in the solids, but boldly pushing it into the domain of the fluids, and this with an energy of purpose, and a strength of conception and execution, such as is rarely shown by 'any nine men in these degenerate days.'"

We opened the book with surprise, a surprise grounded upon the name and fame of the author, and upon the daring affirmative stand which he takes *in limine*; we close it with a deep-laid wonder, and with an anxious wish that it may not appeal in vain to a profession which may gain so much, both morally, intellectually, and scientifically, from the priceless truths contained in its pages."

R. M. Patterson, late Professor in the University of Pennsylvania, said of the Principia:

"It is an extraordinary production of one of the most extraordinary men that has ever lived. The air of mysticism, which is generally thought to pervade Swedenborg's Ethical and Theological Writings, has prevented philosophers from paying that attention to his physical productions, of which I now see they are worthy. Many of the experiments and observations on Magnetism, presented in this work are believed to be of much more modern date, and are unjustly ascribed to much more recent authors." Swedenborg as a Man of Science, 1854, p. 14.

The Evolution of Atoms.

LE CONTE says the doctrine of evolution is more than half of all science. If this is so, then physics and chemistry are not science or they belong to the off half, for they have no such doctrine. And yet it must be evident to everyone who gives the matter careful thought that atoms and molecules with which these two sciences deal must have gone through a system of evolution before reaching their present state. As Clerk Maxwell puts it, atoms bear the stamp of manufactured articles.

Why, then, do not physics and chemistry have their own theory of evolution that will give at least a thinkable account of the development of matter from infinity to its present form? For several reasons: first because man is unable to alter the properties of atoms and watch them grow as he can in the case of living creatures; and secondly, because he has invariably started from the wrong center. The atomic theory as at present held, starts with matter as it is and conceives it split up into the smallest particles which still retain the properties of the original substance. Such a particle is called atom because it is indivisible by human prowess. These atoms are known to be in violent motion, but no attempt is made in the theory to explain whence came the energy that started and keeps them moving.

Men of science have long suspected that what they called atoms were divisible, and many attempts have been made to conceive a simpler atom, an atom within an atom as it were. Prout's hypothesis, that the element Hydrogen furnishes such an atom, is too well known to need more than a passing mention here. That these unit particles are really compound has recently been definitely proved by the discovery that the magnetic field affects the different lines in the spectrum of an element differently. So science is searching for a new theory of atoms that will meet the new demands put upon it by the increased scientific knowledge of the day.

To be at all adequate such a theory has many hard tasks before it. It must settle the dispute between those who believe in the infinite divisibility of matter and those who pin their faith on ultimate indivisible particles. It must be able further, to show how an ether with all its complex electrical phenomena is possible and what its nature is. It must must also be mechanical so as to give good reasons for atomicity or valence and atomic weights. It must also explain how it is that a so apparently structureless thing as a germ or seed can contain in itself potentially so complex a structure as an animal or plant. And yet it must not appeal to "subtile elements" or "inherent properties" or make numerous improbable suppositions, that the atomic theory as at present accepted does not do this, nor even attempt it, all will agree.

Before attempting to build a new theory it will be well to look to history for guidance. Is there any precedent? We find that astronomy was born again with Copernicus. What was his service to science? He changed in men's minds the center of this mundane system from the earth to the sun. Now is not physical science at the present day earth centered? Is it not attempting to reason from effect to cause by founding all its theories on matter? Would not a theory that begins with the infinite first cause, God, be more orderly than one built upon the last finite effect, matter? And will not such a change of the center of our system of thought from matter which is death, to infinite God, who is life, infuse fresh animation into science today in its study of the microcosm, as was the case long ago with astronomy in its works on the macrocosm?

But who can give us such a new theory? Where is the man who can see clearly enough the internal relations of things to give us anything so wonderful as this?

Such a system, perfect in detail, satisfying all the tests just mentioned and many more already exists. It is contained in the writings of Emanuel Swedenborg. It has lain unnoticed by the world for over a century and a half. But the race has now reached a state of development in which spiritual forces are recognized as all-powerful, and hence it is proper for science, if she is to keep abreast of the times, to modify her old theories, or better yet, get new ones accordingly.

In developing his system, Swedenborg first shows that the infinite and the finite are two totally distinct things. We must not think of an infinite thing as a very large finite thing. There is no ratio between them. Since, then, the infinite and the finite are distinct, to connect the two there must needs be something which has qualities of both. This something is conceived by our author as a medium created immediately from and by the infinite. It is pure and total motion, which, being beyond the reach of geometry, cannot be brought under any of its laws, but may be thought of as the first means of creation. At every point of this medium there is tendency to motion. He calls this his first natural point and shows it to be identical with the geometrical point which our geometries tell us "has neither length, breadth, or thickness, only position."

These points are then brought together so that they limit and impede one another, and hence

arises the first finite particle, which, being derived from pure motion, is active beyond all conception. When these finite points are again crowded together they impede each other and form passive particles.

Having thus conceived the creation of an active and a passive principle, our author goes on to show how the active combines with the passive and forms the first elementary particles, this being indeed the first application of that universal law of nature which requires the united action of an active and a passive, a soul and a body, a man and a woman, to produce anything.

In this finished elementary, the active particles are inside and the passive form the spherical shell. It can be thought of exactly as a tennis ball of minute dimensions, the elasticity being due to the rapid motion of the particles inside, while the shape is preserved by the comparatively slowly moving particles of the cover.

Proceeding in the same way, by accretion of first finite particles, those of the second grade, both active and passive, are formed, and from them the second elementary particles. Thus are derived five successive grades of elementary particles, each grosser and less active than the preceding, each containing elements of the subtler ones in its own make-up. Of these elementaries, the first is called the aura. Gravitation is due to this rarest of atmospheres. The second is the magnetic aura ; the third, the ether ; the fourth, air ; and the fifth, acqueous vapor. The various forms of matter, as we know it today, are made up of these five elements, and their actives and passives, through which they were created, in various combinations.

Let me warn the reader against forming a hasty opinion as to the merit of this system from this most meagre outline. The detailed explanation of it occupies two large volumes. Those who think favorably of it must consult the original, which is, unfortunately, rather scarce, before judging of its merits or demerits. In closing, let me, however, call attention to some of its great merits, which are not contained in any other system. Besides completely satisfying all the tests which were laid out for it above, it has the following unique characteristics :

First. It places God, who is infinite life, at the center, thus giving Him His true place in the cosmos.

Second. It furnishes a theory of the development of finite nature from infinite God in conceivable, orderly steps, entirely in harmony with geometrical and other well known principles of existence.

Third. It supplies a connection between God and nature,—the infinite and the finite,—which makes this constant sustenance of His created works rationally thinkable.

Fourth. It arranges human ideas of creation and matter in a natural order, thus preventing man from mixing up things that are eternally distinct.

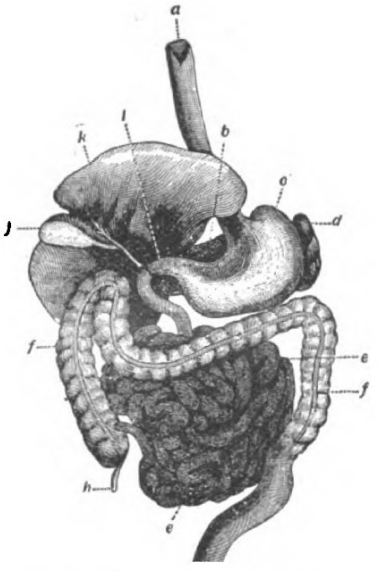
How important the true conception of fundamental things is to men is shown by the progress and development that came to astronomy when it built on the correct theory of Copernicus. I hope that I have been able to clearly show that the theory of infinitessimally small particles as given by Swedenborg is as radically different from the one accepted by science today as were those two systems of astronomy which have been mentioned above. That science is drifting in the right direction is shown by the fact that Lord Kelvin's vortex atom agrees very closely with Swedenborg's finite particle—the conditions of the medium in which the vortices are formed being in both cases the same ; the form of the motion is in one case like a smoke ring, in the other a spiral. Swedenborg, however, views everything in a far nobler way because his system is centred on God, while Kelvin's circles about matter. When science comes to revolve about its true centre, what progress may we not expect.

RIBORG MANN.

The Vermiform Appendix.

ALTHOUGH modern science enters into the most minute investigation of physical objects, there still remain several organs of the human body whose function is obscure or entirely unknown. The vermiform appendix is one of these. Being thus unable to account for its existence, the shrewd physiologist casts about for some means of avoiding the stigma of ignorance, and evolution offers him the most plausible way out of his difficulty. He finds that in many of man's supposed animal progenitors, the cæcum is of much larger dimensions than in man himself. In the horse, for instance, it is an enormous blind sac, several feet in length ; in fowls it is divided into several, large enough to contain food, as also in certain reptiles and fishes, in which spiral diverticula are appended to the alimentary canal.

Again, he observes that in other animals, as the



THE ALIMENTARY CANAL.

a. The aesophagus.
b. The pancreas.
c. The stomach.
d. The spleen.
e. The small intestine.
f. The large intestine has three divisions, cæcum, colon and rectum.
h. The appendix.
j. The gall bladder.
k. The liver.
l. The pyloris.

lemur, hyrax, wombat, and especially in those he considers more highly developed, as the gorilla, chimpanzee and orang outang, there is a small appendix as in man. The inference is quite clear, and he rests satisfied in the statement that this little wormlike body is merely a remnant of the larger cæcum in man's primaeval ancestors, gradually diminishing in size when they began to eat meat. This, however, is an admission which seriously damages his argument. For, although his "monkey forefathers" might also have been weaned away from their vegetarian habits, Natural History teaches that at least the lemur, hyrax and wombat, live exclusively upon a vegetable diet, with, perhaps, the occasional addition of a few insects as a delicacy, and further, that the hyrax has two conical appendices, and has thus outstripped the others in degeneracy.

But such obscurity in regard to the function of the appendix, is the inevitable outcome of refusing to examine the subjects of physiology from the standpoint of *use*. To Swedenborg's attitude in this respect, the character of his wonderful treatises is, to a great extent, due. Through all his studies he was guided by the firm belief that every minutest cell was perfect in itself and most perfectly adapted to the performance of a use. At times he reasoned from structure to use, at times from use to structure, but never was he led astray by mere facts and isolated experiments, but penetrated into the occult secrets of nature, more deeply than any other scientist known. Thus, he assigns to the diminutive appendix, apparently so insignificant, a function that cannot be underrated. He says of it: "The Appendix Cæci Vermiformis, the tongue of this balance of motion, opens its pores and expands its cavity, synchronously with the cæcum, *and pours a new liquid, adapted for anointing and lubricating the wavy folds of the colon, and particularly for macerating the fæces*, into the fundus of the cæcum, and the gorge of the colon. This liquid is proximately obtained from the cellular coat of the intestines; remotely from the cellular coats of the peritoneum and of the abdominal viscera; the appendix cæci draws off and discharges the useless and harmful portion of it, just as the cæcum itself, draws off and discharges the alvine fæces." *Animal Kingdom*, n. 138.

It will be noted that each articulation of the alimentary tract is supplied with its own "stationary springs," which are situated especially at the angles and gateways. In the mouth, the food is mixed with a copious flow of saliva; at the opening of the pharynx it receives a glutinous coating from the tonsils; in the esophagus, it meets with the secretions of the thyroid and other glands, and it is detained for some time in the stomach, in order to be subjected the more fully to their collective influences; then the chyme, as soon as it enters the duodenum, is deluged with pancreatic juice and bile. Why, then, should there not be still another "fountain" here at the beginning of the colon? Each articulation secretes from its glands, menstrua exactly suited to the part it plays in the long process of digestion, and these fluids, besides their actual efficiency in digestion, also act as lubricators, keeping the walls of the canal moist and pliant. For instance, if the flow of the saliva is suddenly checked, as after a severe fright, how soon the tongue begins to cleave to the roof of the mouth. This is because the mucous membrane is teeming with little oscula, which would greedily absorb the last drop of moisture, if it were not constantly renewed. How much more imperative, then, is this renewal in the large intestine, which recives the heavy grumous mass that has been subjected to this absorptive influence for over fourteen hours. If it were not for the appendix, the colon and rectum would soon become impacted, as takes place when these fluids fail.

Swedenborg was well aware that the caecum in many of the lower animals, is much larger than in man, but this was to him only a confirmation of its function, and the function of its appendix. He saw that the only reason why food should

enter these long, blind pouches, to be again ejected, was, that it might be more thoroughly macerated and digested. So the cæcum in man, forms a way station, where the faecal matter is retained in order to receive its quota of the "appendicular juice," which is the most acrid and most seaching of the digestive salivae, well calculated to assist the powerful walls of the colon, in their last, rigorous castigation of the effete mass. He quotes extensively from contemporaneous anatomists, who minutely describe the structure of the appendix, its little glands, its muscular and mucous coats, all of which resemble those of other portions of the digestive system. Even were it possible to reconcile the principles of evolution —if they can be given so dignified a title,—with his teachings, the fact remains, that he would never have considered an organ so perfect, as rudimentary.

The popular idea of the appendix, is that of a little pocket, whose only function is to catch grape seeds and cause considerable trouble. The laity then, assign to it a use, even if medical men do not. As a matter of fact however very few cases of *appendicitis* are due to a captive grape seed. In most, a small bit of inspissated faecal matter has been found, often much resembling the seed of a grape, but even this is not the sole cause, as is proven by the case of an insane woman, who carried twelve much worn pins in this out of the way corner, for a long time, with no inconvenience whatever. Death from some other cause brought them to light. It is a significant fact, that in the great majority of cases, the appendix was found hanging downward, thus bent upon itself and not only closing its humors, but also interfering with its already feeble blood supply. Herein lies the chief danger that threatens it. It is no more liable to disease than the other organs of digestion, but when the surrounding parts become lax and inert, the appendix suffers with the rest. Still from the standpoint of the evolutionist, we are much better off without it, and Prof. Burt G. Wilder, of Cornell, has gone so far as to suggest that it be excised in early life, to avert future danger, and especially to so modify the race, that it would be absent in the generations to come. Probably no one asked him to explain why four thousand years of circumcision has not so modified the Jewish race, that they would have no need to practice it! The modern surgeon too is on his side, for he fairly itches to be at his patient with the knife. It is criminal to mutilate human bodies as is done every day in the operating room, when the trouble may be amenable to internal medication, as appendicitis is. Perhaps, if medical men could be impressed with the importance of this little organ, they would be less eager to make way with it. It is an integral part of every perfect human being, and its removal must have some effect upon the general health, even if its function can to some extent, be assumed vicariously by some other part.

HARVEY FARRINGTON, M. D.

NOTES.

A meeting has been called by Rev. Frank Sewall, of Washington, D. C., to organize "The Swedenborg Scientific Association," for the purpose of the further translation, publication, distribution and study of the scientific and philosophic writings of Emanuel Swedenborg. The meeting is to be held May 27th, in the rooms of the American Swedenborg Printing and Publishing Society, New York. We are in full sympathy with this movement, and hope and expect that by means of it a new and widely extended interest will be aroused in the truths contained in these writings. In our next number we expect to give an account of the proceedings of the meeting.

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Rev. T. F. Hite, in the *New Church Messenger* of May 4th, has an interesting article on "The New Church versus 'The Materialism of Science.'" The chief aim of the article is designed to show that we must put a higher motive into our work than that of merely making money, or of obtaining a living. There must be an unselfish motive as the ruling power in a genuine Christian life. The love of use should rule, and the material means should be used as a servant. He points out the materialism of motive in the conduct and aims of most men at the present day, and warns especially against it, showing that Christian duty requires the life to be one of unselfish love in the performance of uses to the neighbor. This essential of Christian conduct is much neglected in the teachings of ministers, both in and out of the Church.

In speaking of "The Materialism of Science," he says: "A fuller acquaintance with scientific aims and methods has made it clear to me that the phrase is a misnomer. 'Materialism' is a system of philosophy, and as such it forms no part of and has no necessary connection with science. As a system of philosophy it is universally discredited.

THE NEW PHILOSOPHY.

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It never had the dignity or the consistency of a philosophical system, and it is now completely antiquated and outgrown. The reigning philosophy of the present day is idealism, the exact opposite of materialism."

"It is no doubt true that there is a great deal of lingering materialism in much of the crude scientific speculation which we meet in second or third rate books, but a scientist who is really aware of his business has not the least concern about philosophical systems of any kind. The reason for this is obvious. Every science begins with its own clearly recognized and well defined presuppositions, and does not concern itself about the justification or criticism of them. For example, physics assumes space, time, matter, motion and energy; but it does not concern itself about whether these things really are as they are assumed to be. If it did, it would never come to the point when it could begin work. It turns all such considerations over to philosophy, and proceeds to its own task with its own aims and methods. So also chemistry assumes atoms and molecules, but it does not stop to ask whether atoms and molecules really exist as conceived. The science of chemistry would not be materially altered, if it cast aside the conception of atoms and molecules altogether and adopted new conceptions in place of them. So, too, the youthful science of psychology assumes with physics an external physical world with organic bodies in it, and in the bodies states of consciousness; but it does not stop to inquire how such a thing as a state of consciousness could really exist, or how it could be in or connected with a physical body. These are questions for philosophy. So of any and all the sciences. 'The Materialism of Science,' then, need not disturb us in the least. It presents us with no task whatever."

Prof. Hite here raises some very interesting questions. Whilst this position in regard to the exclusion of philosophy from physics, chemistry, psychology, etc., may be an ideal one, yet we think it will be difficult to find many text books or treatises which do not introduce a materialistic philosophy into into its pages. To test the matter we take down from the shelf Barker's Physics, and find, on page 5, the following statement:

"The total energy of the universe is constant. Into whatsoever forms this energy may be converted, its total amount remains absolutely unchanged. Precisely as *no matter has ever been created or destroyed*, so no energy has ever come into existence or has disappeared."

Nothing could be more materialistic than this statement. Nearly every text book of astronomy inculcates the nebular hypothesis of La Place, the sustentation of the sun's heat by meteoric matter, or by the shrinking of its mass, and other theories known to be untrue to every student of Swedenborg. The books on biology are full of evolution, and the text books of physiology are vitiated by false teaching on many subjects.

The ideal view of science as presented above, involves vastly more than at first it seems to contain. It enters fundamentally into the question of education. If mathematics, chemistry, physics, biology, psychology, astronomy, etc., can and should be taught and investigated separately from philosophy and theology, it would completely dispose of the question of New Church education. Theology would then be excluded from day-school teaching and philosophy would find little opportunity for its exercise. To our mind, theology is like the soul, philosophy is like the mind, and science, with its facts, is like the body. As the soul flows into the mind and together with this into the body, making a living active organism, so theology is the soul of philosophy, and the two enter into and give life to all the materials and facts of science. This quality certainly is most fully found in the science and philosophy of Swedenborg. Science, philosophy, and theology in its true sense are so interwoven as to make one living, organic, whole. To our mind, education should be conducted on similar lines. The youngest children drink in with delight, instruction concerning nature which is interwoven with the idea of the Creator. In a true educational system, which can be developed from the system of truth given by Swedenborg, all these elements will be intimately blended, yet the nature of the instruction must be adapted to the ages and capacities of the pupils.

Our public school system is based on the theory of the separation of theological instruction from the teaching of science. Some New Churchmen favor this, others do not. Prof. Hite's statement goes to the root of the subject. We do not believe he takes this position himself, yet it seems to us that the principle he here lays down involves it. We here call attention to it, that the subject may receive the more full consideration which its importance deserves.

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