WATTERS. (J. H.)

Dr. Watters doctrines of life - Reply to London Lancet, and closing remarks

DR. WATTERS'

DOCTRINES OF LIFE.

REPLY TO LONDON LANCET, AND CLOSING REMARKS.

[Extract from St. Louis Medical and Surgical Journal, Nov. 10, 1869.]

DR. WATTERS' DOCTRINES OF LIFE.

By the series of documents we publish below, the "controversy" which we have admitted into the pages of the Journal, relating to the doctrines of life advocated by Prof. WATTERS, is closed, so far as Dr. WATTERS and this Journal are concerned. The papers need no further comment. The *Lancet*, a London medical periodical of the very highest standing, calls forth these papers by (as will appear below) an undignified and wanton attack upon Dr. WATTERS, in which it attempts to set aside Dr. WATTERS' scientific claim by perverting it into a personal injury to Dr. CARPENTER. For our own view of the matter, in lieu of reiteration we refer the reader to our remarks on Dr. CARPENTER's Letter on page 279 of the previous volume (1868) of this Journal. As the *Lancet*, by its article, creates an erroneous impression in regard to the controversy, and that, too, intentionally, as appears from its refusal to publish Dr. WATTERS' correction, we feel obliged to give a place to these documents.—ED.

EDITORIAL OF THE LONDON LANCET, APRIL 10th, 1869.

"Dr. WATTER's Charge of Plagiarism against Dr. CARPENTER."

"We are never inclined to be hard on that numerous class of scientific writers—the men with grievances. It must be allowed that there is something singularly attractive in the prospect of a reputation for original discovery in science, and something correspondingly disagreeable in finding that the world generally attributes discoveries, which we fancied our own, to some one else. The complaints of men who think themselves thus robbed are natural enough, even when they are unfounded. But in this latter case they frequently become a public nuisance, and a certain degree of pertinacity on the part of those who urge them is apt to excite an uncontrollable desire in the minds of impartial persons to get rid of the grievance and the grievance-monger by the most summary means available.

"We are not going to enter into the controversy in which Dr. WATTERS, of America, tries to fasten on Dr. CARPENTER the theft of his 'doctrines of life.' We have already expressed the opinion—and we cannot help repeating it with some indignation—that a scientific man of Dr. CARPENTER's long-established reputation, both for original research and personal probity, ought not to be subjected to an accusation of this kind, except on the most stringent proofs advanced against him; and it is with surprise, as well as with regret, that we observe the disposition of some of our American medical contemporaries to support a charge which appears to us extravagant and unjustifiable. Ever since the year 1850 Dr. CARPENTER has been steadily developing a doctrine of vital action, which, right or wrong, is throughout consistent. Dr. WATTERS makes the extraordinary mistake of supposing that a doctrine which was many years older than this date, and which Dr. CARPENTER never claimed for himself at all,—viz., that vital motor force is reciprocal with decay—was discovered by him (Dr. WATTERS) in 1851; and we must be pardoned for saying that such a mistake is sufficient to put its author out of court in any argument respecting the 'doctrines of life.' Dr. WATTERS also takes credit for originating the idea that the function of the germ, and subsequently of the organism, is to determine the *direction* in which the forces originated by tissue-change shall act; but this is a mere necessary complement to the doctrine of force-making tissue-change. Finally, he appears unable to understand either the doctrine of correlation of physical forces, or Dr. CARPENTER's application of it to vital phenomena; at least, if this is not the case, he has expressed himself in the most unhappily confused language in those specimens of his writing which we have seen.

"We do not at all desire to underrate Dr. WATTERS' own merits, however; and it would appear that a really distinguished American writer, Professor LECONTE, to whom Dr. CARPENTER has freely expressed his own obligations for the original idea of a certain portion of his speculations, thinks highly of Dr. WATTERS' work. But it is not quite tolerable

that Dr. WATTERS should now assert that a bundle of papers which he, a perfect stranger, sent to Dr. CARPENTER some seventeen years ago, after Dr. CARPENTER had already published the groundwork of all his future writings on the doctrine of life, and which probably found their way instantaneously to the waste basket, were surreptitiously converted to his own uses by the distinguished English physiologist. The charge is a serious offense against good manners and good feeling, and we hope Dr. WATTERS will have the grace to retract it."

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519 LOCUST STREET, ST. LOUIS, June 12th, 1869.

To the Editor of the Lancet:

SIR: My attention has been directed to an editorial in the number of the Lancet for April 10th, under the above heading. While I assume you are sincere in the positions taken in that article, yet, as I stated in my reply to Dr. CARPENTER'S letter, published in the ST. LOUIS MEDICAL AND SURGICAL JOURNAL for May, 1868, I *did not* charge Dr. CARPENTER with "plagiarism" or "theft." I *did*, however, make the statement that Dr. CARPENTER had *recently* published doctrines of life in many respects identical with those I published in 1851, and that he gave *me* no credit, though I had been careful to send him my papers, and though they had been published from time to time in our journals. *This statement* was based upon our respective printed records, and of which I hold there are "the most stringent proofs;" but it is not held that these "proofs" establish plagiarism, and, therefore, such a charge was never made. I could have had no motive in making such a charge, as my right in no way depends upon it either in law or equity. It is not easy to see why Dr. CARPENTER'S "long-established reputation both for original research and for personal probity," should be presented against a statement purporting to be based upon *facts* in print, accessible to "impartial persons" who desire the *truth* no less than they would desire "to get rid of the grievance and the grievance-monger by the most summary means available." Though indeed it is to be regretted, yet you need not be surprised if such arguments excite the suspicion that the cause is intrinsically bad. It is scarcely the kind of argument one would expect to find in an editorial of a journal devoted to science, which is supposed to value the message, apart from the messenger. You may regret it, but need not be "surprised to observe the disposition of some of your medical cotemporaries" to worship truth and justice rather than the man. I find no cause to regret the course I have *at last* adopted, either from Dr. CARPENTER'S letter or from the tone of your editorial. If it be true, as you naïvely suggest, that my "bundle of papers sent to Dr. CARPENTER," "found their way instantaneously to the waste-basket," *because* I was a "perfect stranger," how was I to gain an audience? As I could not find a way, I saw fit to make one. But this plea of yours is an implied admission of the justice of my claim; for if there were not something in these papers, what would be the difference whether they found their way to the waste-basket or were read? For

you, the "*probably*" may be convenient, and I would not deprive you of it if I could, for, since I have felt compelled to adopt the course I have, it is a matter of indifference to me. If Dr. CARPENTER did not read them, he could easily have said so in his letter, and this controversy would have been avoided. He did not say so, but rested his claim upon the position that there is no essential difference between his doctrines of 1864 and those of 1850. This is the real question at issue between Dr. CARPENTER and myself, and not his "probity" or his "reputation for truth and honesty." In this country, a man of undoubted "personal probity" may claim another's property; he may have come by it honestly—but it may be doubted if it would be altogether consistent with that "long-established reputation," if, when the adverse claim is made, and proof furnished, the attempt should be made to get rid of the "perfect stranger" by the most summary means available, and to "put him out of court" without a hearing. If, after a fair hearing, he prove an imposter, it would then be time enough to deride and scorn him.

You affirm: "Ever since the year 1850 Dr. CARPENTER has been steadily developing a doctrine of vital action which, right or wrong, is throughout consistent." This is your own opinion, doubtless, but it is hoped you will not take it as cause of offense if, from facts before presented, some should come to a different conclusion.

You affirm: The "doctrine that vital motion is reciprocal with decay was many years older than the date of Dr. CARPENTER'S memoir (1850), and that he never claimed it for himself at all." If you mean by this the doctrine that decay is the logical antecedent of the vital motion, I affirm: Dr. CARPENTER held just the reverse in his memoir of 1850, and subsequently up to 1864. As he never advanced it nor even mentioned it at all in 1850, how could he have claimed it for himself? You affirm: "Dr. WATTERS also takes credit to himself for originating the idea that the function of the germ, and subsequently of the organism, is to determine the *direction* in which the forces originated by tissue-change shall act; but this is a mere necessary complement of the doctrine of force-making tissue-change." On the other hand I affirm: There is no evidence that Dr. CARPENTER discovered this "necessary complement" until 1864; in fact, before this latter date, his "*peculiar vital force*," metamorphosed from heat, light, etc., was assumed by him to account for the *peculiar* "direction" of the vital motions. You affirm: "He (Dr. WATTERS) appears unable to understand either the doctrine of correlation of the physical forces, or Dr. CARPENTER'S application of it to vital phenomena." You speak here as an individual, doubtless, and I affirm as an individual: you have an undisputed right to that opinion.

You are also pleased to say: "We do not at all desire to underrate Dr. WATTERS' own merits, however, and it would appear that a really distinguished American writer, Professor LE CONTE, to whom Dr. CARPENTER has freely expressed his own obligations for the original idea of a certain portion of his speculations, thinks highly of Dr. WATTERS' work." What Prof. LE CONTE, or his opinion of my "work," has to do with the controversy between Dr. CARPENTER and myself, I cannot see sufficiently clearly

to venture an opinion. If you had been pleased to quote Prof. LE CONTE, however, it would have read: "A careful perusal of his (Dr. WATTERS') paper has convinced me that *his claim is just.*" That language is unmistakable; it possesses that grace which could only have emanated from a true man, especially as it relates to what you refer to when you say Dr. CARPENTER freely expressed his obligations to him (Prof. LE CONTE).

I am confirmed in my belief that my *claim* contained no "offense against good manners and good feelings," by the fact that neither Mr. HINTON nor Prof. LE CONTE found cause of offense; they did not fancy or imagine I had charged *them* with either "plagiarism" or "theft."

Will you please do me the justice of inserting this communication in the next number of the Lancet, and oblige

Yours, very respectfully,

J. H. WATTERS, M.D.,

Professor of Physiology and General Pathology in the Missouri Medical College, and President of the St. Louis Medical Society.

To the Editor of the St. Louis Med. & Surg. Journal:

Dear Sir:—I send you herewith a copy of an article which appeared in the London Lancet as editorial, April 10th, 1869. I also send a copy of a letter in reply, which I sent to the Lancet for publication more than four months past. As I have not heard from that letter since, and as the Lancet has as yet failed to make any corrections of its misrepresentations in regard to the controversy between Dr. CARPENTER and myself (so far as I can learn), I ask you to please publish these papers, that *I* may correct the false positions of the London Lancet through your Journal. I ask this because, as I value my own honor, I do not desire Dr. CARPENTER'S "reputation for personal probity" to be made a subject of controversy.

The heading of the editorial of the London Lancet—"Dr. WATTERS' charge of plagiarism against Dr. CARPENTER"—is untrue, unless what I stated as *facts* admits of no other explanation. If these facts are consistent with other explanations, and *I* have no doubt they are, then it is the London Lancet, and not I, that brings Dr. CARPENTER'S reputation for personal probity into the controversy, in that it *substitutes* "charges of plagiarism" and "theft" for the plain statement of facts which *alone* I presented without comment or inference. I presented the facts merely in a *civil* suit for the recovery of property. The question as to how Dr. CARPENTER obtained possession did not enter into the merits of that suit; but, in order to prove property, it was necessary to show when and where I had published, and that an *opportunity* had then and there been afforded by me for an acquaintance with those doctrines. I did not then, and do not now, intend that foreign issues shall be brought into this suit for the rendition of property. It is true, in my lecture I made the *demand* in tones which could not remain unheard, and which called for response; but this had become necessary, it seems to *me*, as my previous publications continued persistently to "find their way instantaneously into the

waste-baskets" of those who were more recently adopting and publishing the same doctrines.

Now, Mr. Editor, as Dr. CARPENTER'S private character has nothing whatever to do with the issues in this controversy, I hope the London Lancet, if it should be pleased to enter hereafter into the discussion of the real issues, will have the delicacy to leave that out. I have not been his accuser and will not further be his defender. It is commonly believed that he who has a consciousness of rectitude is the least suspicious of an imputation upon his honor.

But there is one passage in the article of the London Lancet to which I invite special attention; that is, its reference to Prof. LE CONTE. And to make the point clear, I will print the reference of the Lancet, and the passage from Prof. LE CONTE referred to, side by side:—

[From the *St. Louis Medical and Surgical Journal*, Nov 10th, 1868.]

"I received a few days ago a copy of an article by Dr. WATTERS, published in your Journal, entitled 'Doctrines of Life,' in which he gives a history of the introduction into physiological science of the idea that *life-force is generated by decay*, and claims for himself priority in the origination of the idea. A careful perusal of his paper has convinced me that *his claim is just.*"—*From Prof. LeConte's letter, dated Columbia, S. C., August 31st*, 1868.

[From the *Lancet*, April 10th, 1869.] (Its version of Prof LE CONTE'S letter.)

"We do not at all desire to underrate Dr. WATTERS' own merits, however, and it would appear that a really distinguished American writer, Professor LECONTE, to whom Dr. CARPENTER has freely expressed his own obligations for the original idea of a certain portion of his speculations, thinks highly of Dr. WATTERS' work" (!!)

Comment upon this gross misrepresentation by a scientific journal of a matter most pertinent to the issues of the controversy, is scarcely necessary. Dr. CARPENTER refers to Prof. LECONTE both in his "letter" and in his writings; in the one as being under obligations to him, and in the other as evidence that he is "not wanting in readiness to acknowledge real obligations of this kind;" Prof. LECONTE publishes that he is convinced that my claim is just, and *five months after* that the London *Lancet* permits this perversion of issues and facts to appear as editorial, and then for six months fails to make or to permit corrections. Thus it seems fit for the London Lancet to treat the "perfect stranger," but the "perfect stranger" was very naughty to state certain facts relative to the actions of Dr. CARPENTER, who from position and external influence *ought* to be able to take care of himself. I am persuaded that this is as little in accordance with sentiments of *true* nobility in England as in America. I did suppose, and do now, that the letters of Prof. LECONTE and Mr. HINTON settled this controversy so far as they or I had any interest in it. Neither of them fancied an intention to "call in question their reputation for truth and honesty," and there is sufficient internal evidence of originality in their writings to prevent any such imputation resting

upon them. I have no further interest in the controversy and will not further participate in it. I hope the London Lancet "will have the grace" to correct the mistakes referred to in its editorial.

MR. EDITOR: "The controversy" being closed, please allow me to state my understanding of the scientific points involved, and the direction towards which this movement is tending. If we analyze the physical sciences so far as they are definitely developed, we will find that they consist in the limitations which in sensational consciousness constitute "*the thing*," being recognized and known as limitations of self-conscious thought. The object *known* being necessarily a thought-object, the sense-object, in order to be known, must become a thought-object. Thus physical science is rendered possible only through an identity of the sense-object and thought-object. Upon the establishment of this identity, thought in knowing its own object knows the sense-object. Thus only is the sense-object known and is physical science possible. We do not construct here, nor find, the long sought bridge over the "gulf" separating the objects of sense from thought, but the necessity for any such bridge is removed in that the gulf is an illusion. That bridge could never be constructed, as thought cannot pass beyond itself, or transcend its own limits.

In the development of physical science there are three movements: 1st, the process of thought in knowing itself or its own objects; 2nd, the process of reducing sense-objects so they are seen as identical with thought; 3rd, the process of thought, through this established identity, asserting itself as *objectively* valid and applying its own predicates to real things. This third movement must logically appear last, because it includes the other two; but as it includes the other two, it is *the* movement of physical science in its most comprehensive development. The first two movements remain more or less separate for a greater or lesser time; their union is the beginning of the third movement.

Let us take any one sense-object and suppose it the subject of scientific investigation, and we will at once recognize the triune movement. Let us suppose a surveyor wishes to know the superficial area or contents of a tract of land. He first ascertains the boundaries or *limits* of this tract, and from these "data" he "calculates" the area. What is the rationale of this very simple process?

First in regard to the instruments used: All *instruments* or *measures* are such, in that in them the sense-object and thought-object are united. They are sense-representations of thought-objects. The instruments used by the surveyor are the "compass" and "chain"—by means of the compass he obtains the bearings, and by the chain, the length of the boundary lines.

Upon the side of thought, these instruments or measures are mathematical definitions. At the same time they are sense-objects—they represent the unity or identity, and only as they truly represent this identity are they correct. Not that they are *absolutely* identical, but in their use, an absolute identity is assumed.

Mathematics is the oldest of the sciences and relates only to thought-objects, but may be applied to sense-objects upon an established identity. The definitions—straight line, triangle, circle, etc., are thought-objects, and the object of geometry is to determine the properties of these as thought-objects. Thus pure mathematics represents the first movement of the physical sciences. The compass is a visual representation of the circle. It is divided into three hundred and sixty equal parts, called degrees. At the center, a needle—straight line—is placed upon a pivot, and, wherever the instrument may be placed, is supposed to point in the same direction. This direction of the needle is called north and south, and the bearing of any line is its relation to this in degrees. So, the chain is the recognized unity of a thought-object and sense-object, in that it is a *straight line* of definite length. Thus, when these instruments are comprehended, they are used as a medium by which sense-objects are converted into thought-objects. The surveyor, to obtain the area of a tract of land by means of these instruments, first obtains a thought-object *identical* with the sense-object; that is, as he comprehends both the thought side and sense side as united in these instruments, he applies them to the tract of land and takes as his "field notes" the thought side. He is now justified in neglecting or dropping the sense-object that thought may know its own object. And what he thus finds true of the thought-object he unhesitatingly predicates of the sense-object *because* of the previously established identity. This is but one example to illustrate what is and must be the condition of *all* physical science, viz: the conversion of the sense-object into a thought-object, or rather the seizing them in their identity. The difficulties and liabilities to error have nothing to do with the question; neither has the particular method; only so far as it is done can physical science, properly speaking, exist. And it is being done continually; the child is asked the sum of two and two, it counts its fingers or marbles and answers, four.

In the history of mechanics and astronomy we find that the sense-movement remained more or less distinct from the thought-movement until the latter part of the seventeenth century and the beginning of the eighteenth. The establishment of the "three laws of motion" at that time united the movements, and through this established identity thought has unhesitatingly asserted its validity in regard to phenomena in these departments of physical science. This recognition of the identity of the two movements was really the beginning of these sciences in a strict sense.

In regard to the phenomena of life it has been usual even to the present time to assume some *occult* force or forces as the determining cause of the peculiar modes of action there observed. As these forces are occult, thought has been unable to assert itself as valid in regard to them. The two movements have remained separate. Though in the development of special forms infinite intelligence is manifested, yet in regard to these very manifestations, thought has been most slow in asserting its validity. Thought refuses to have to do with such vague conceptions of force as "dormant properties of matter," "an abstract notion emanating at once

from the Divine will," "affection of matter," etc., etc. If it takes up "mode of motion" as a force, it must at once drop it, for a "mode of motion" is as *inert* as a mode of rest. "*A body continues in the state in which it is, whether of rest or motion, until compelled by some external force to change its state.*" Ah! then a "mode of motion" is not in itself a force but in that which it is not—in opposition *external* to itself. But in the annulment of the opposition, action and reaction are equal and opposite, and hence the reassertion in the annulment, and the "conservation of *vis viva*." This is not the "conversion" or "metamorphosis" of one abstract somewhat into another, for force is only in the concrete relations. Thought has already asserted its validity respecting force thus far, that it cannot be dormant or inactive—that force is persistent. But the movement with which I claim connection is to establish the identity of the vital movements and the dialectic of thought, that through this established identity, as in other sciences, thought may assert objective validity universally. We wish through the sense-movement to establish that the life of nature *is* the dialectic of thought realized.

Nature is now pregnant with this idea, and it matters but little whom she may choose as her accoucheurs. As in the latter part of the seventeenth century and beginning of the eighteenth mechanics thus became a positive science, so it must be with biology in the latter part of the nineteenth and beginning of the twentieth centuries. The thought-side is already well developed, and it only remains for us to bring up the sense-side that the identity may be recognized. I do not deny that even now I feel somewhat proud that in 1850, while yet an under-graduate student of medicine, I rebelled against the doctrines of life then taught. I advanced in my thesis, written for the degree of Doctor of Medicine, which was published in 1851, the doctrine that decay, under the conditions of life, gives the vital motor, while the special modes of action are determined by the form, as the motions of the watch are due to the recoiling of the spring, while the specialty of the movements are due to the mechanism. Since (and very possibly earlier, though as yet I am not aware of it,) the same doctrines have been advocated by very distinguished scientific men, for instance: Prof. HENRY, of the Smithsonian Institute, in 1857; Mr. HINTON, of London, in 1858, and again in 1862; Prof. LE CONTE in 1859; and in 1864 Dr. CARPENTER advocates them as "suggested by the advance of science." But if these doctrines be true, and so far developed as to be suggested by the advance of science, we cannot refuse to further ask ourselves such questions as these: If the *form* or *organism* determines the mode of the special vital motions, what determines the form or organism? Again, if decay gives the motor to the vital motions, must there not already have been life that there may be anywhat to decay? Again, if vital force is the resultant of conditions, upon what do these conditions depend—by what are they sustained? As there have been many who have supposed they had discovered perpetual motion, so one may exhaust his inventive genius through an infinite series of dependents in space and time, to reach the *in*dependent—the *self*-sustained. And one may suppose he has thus solved the problem,

as, for instance, the "progressive development" theory, "the struggle for existence" theory, the theory of "evolution from the homogeneous to the heterogeneous," etc., etc. "Thousand to one, the goal of your philosophy will be the spot where you become weary of thinking further." But thought, for a time exhausted, will again revive and warn you that you have gained nothing by your infinite series—that every additional link in the chain of dependents is but another demand for the self-sustained.

Seeing then that nothing is gained by the infinite series, may not the self-sustained be ever *here* and *now?* Is not the contradiction in every thing? and is not existence possible only through that very contradiction? If we would not abstract things from their relations, would we not at once see that the laws of heat, of light, of electricity, of chemistry, of life, are the laws of self-determinate thought? This is the direction, "I venture to think," the present movement must rapidly carry us. When these questions are definitely answered in the affirmative, thought will unhesitatingly declare its validity respecting the phenomena of life as it now does in regard to mechanics, and biology will lose its vagueness as mechanics did two hundred years ago. While the laws of life are fixed and definite, the vital motions are the manifestation of infinite intelligence. Very respectfully, J. H. WATTERS.

519 LOCUST STREET, ST. LOUIS, NOV. 2d, 1869.