Morris (J. C.)

WITH COMPLIMENTS OF
J. CHESTON MORRIS, M.D.

on vital molecular vibrations

1514 Spruce Philadelphia

On Vital Molecular Vibrations.

SURGEON GEN'L'S OFFICE
415
LIBRARY

Extract from the minutes of a meeting of the American Philosophical Society, held January 2, 1891.

Dr. Morris called the attention of the Society again to the subject of Vital Molecular Vibrations:

Force is not motion, as Dr. McLaughlin puts it, but that which causes motion or change in matter. While its true nature is unknown, the phenomena of the various physical forces correspond so completely with undulations or vibrations that they are recognized as such, the results of impulses brought to bear upon matter capable of atomic vibration; and the tendency of modern thought is more and more towards considering light, heat, electricity, chemical affinity and mechanic force as all of them essentially only modifications of one and the same force. But when we come to consider the phenomena of life, while we find that living bodies are all composed of material atoms similar to those of the inorganic world, another force or impulse seems to be at work suspending or reversing the ordinary action of the physical forces. It is characterized by acting, as they do, only under special conditions, viz., the presence of plasma or organizable matter, heat, oxygen, light, and a germ, itself the product of previous life. Withdraw any of these—the ordinary phenomena of inorganic matter present themselves. But whenever they are present, an organized form results which tends to follow the type of its parent forms. Fresh particles of matter are taken up and others are discharged; in other words, we have the phenomena of growth, development, secretion, excretion and of reproduction; all the physical laws and properties of matter are retained and followed, but they are subordinated to or coördinated with those of another force, which we call vital, organic or germ force, with its own laws as distinctly defined as those of chemistry or heat. It is just as unreasonable to deny the existence of the former as of the latter.

Hitherto the vibratory theory has only been applied to explaining physical phenomena. It remained for Dr. McLaughlin to extend its application to vital phenomena, by showing how completely it explains the phenomena of immunity from, and prevention of, infectious and contagious diseases by the law of *interference*. I wish to call your attention to a similar explanation of the phenomena of germ force and heredity by the law of *transference*. If two weights are suspended at proper distances from a cord fastened transversely between two pillars, and a third weight is similarly suspended between them, and motions imparted perpendicularly to each other to the two outer weights, these motions will be so transferred to the third weight as to cause it to describe a series of curves resulting from the impulses transmitted; or if a powder be dusted

REPRINTED FROM PROC. AMER. PHIL. SOC., VOL. XXIX, FEBRUARY 2, 1891.

SURGEON GEN'L'S OFFICE 415 LIBRARY

over a square tin plate, and the edge of the latter be touched at certain nodal points, the powder will arrange itself in certain lines and geometric figures. Is not this precisely what happens when the germ-cell and sperm-cell, the molecules of each vibrating in accordance with the impulses impressed upon it, unite in the production of the new germ, which in turn vibrates in accordance with these impulses, and proceeds accordingly to arrange and develop fresh molecules, forms and figures similar to its antecedents? In this way we have the explanation of the germ resulting only as the harmonic product of suitable vibrations—of the hereditary transmission of qualities—and of the variations from type which occasionally occur. We have also the explanation of the cessation when life vibrations shall have been exhausted or transmuted into other forms of life itself, or so-called death. We have also the explanation of the periodicity of many, if not all, of the functions of living bodies, both in health and disease. Likewise, we have an explanation of the effects of drugs on certain organs and functions. To say "that opium produces sleep on account of its somniferous tendency" is to veil our ignorance very thinly. But, if we suppose that nerve tissue has a certain vibration, so differing in period from that of the morphia molecule which we introduce into the blood, that until the latter is eliminated or changed the nerve vibrations are modified or suspended, we can form a much more rational conception of the effect of opium. So also with the selection of appropriate food from a common plasma by different organisms, and also from the blood by the various organs and structures of the body. In fact, a new field is opened to biologists, naturalists, physiologists and physicians whose limits are at present far beyond our ken.