

RADIATION AND MATTER

THE RADIANT UNIVERSE. By George W. Hill. Philosophical Library, New York, 1952. (489 pages).

Modern students of Swedenborg have been puzzled how to explain his assumption that the first "pure and total motion" which generated the first entities of which nature is composed tended to a spiral or vortical motion. For the testimony of modern physics is that a body from its momentum moves along a straight line unless subject to other forces. (Newton's first law of motion.) The author of *The Radiant Universe* points out that if this be always the case no change would be possible; and we would be unable to explain why all bodies move upon *curving* paths, unless we supposed "that the original motions which were to be handed down to all future bodies must have been *swirling* motions." (Preface and pages 479-48.)

Essentially, Swedenborg's theory in the *Principia* presumed an original motion (derived from *conatus*) which was of intense energy and frequency and which—by complicated formation into composite particles—was slowed down to lower frequencies which were perceptible as material entities of various discrete degrees.

Mr. Hill's theory also posits that the universe contains at its roots a field of Basic Radiation, or an ether, or dynamic space, which by its nature has escaped detection. Matter as entities is simply a conversion of this Basic Radiation, which in turn passes through all material objects. The Basic Radiation in turn "offers no resistance to material motion"; for matter is only a condition in this "ether," and is thus both the effect and the cause of it. (Page 3.)

On the basis of his hypothesis, Mr. Hill attempts to explain influence at a distance and to deny the "entropy" with which modern physics threatens the universe. He regards his Basic Radiation as a universal quality of space, in which matter is simply an interference phenomenon. (Page 439.)

He explains gravitation by the absorption of the Basic Radiation by bodies of matter, creating the effect of a pressure towards the center of these bodies proportionate to their masses. (Page 441.)

Gravitation, he says, is "the only influence transmitted as a multi-directional attenuation of the Basic ether." (Page 481.)

Whatever the scientific value of Mr. Hill's speculations, he shows courage in voicing the doubt that perhaps some of the "fundamental principles" of physics "were not so all-inclusive as has been supposed."

H. L. O.

SWEDENBORG SCIENTIFIC ASSOCIATION

The Sixty-Sixth Annual Meeting of the Swedenborg Scientific Association will be held in the auditorium of Benade Hall, Bryn Athyn, Pennsylvania, at 8:00 p.m., Wednesday, May 15, 1963.

Reports and election of president and members of the Board of Directors will be followed by an address by Prof. Edward F. Allen on

**Chance in Modern Science
and its Relation to
New Church Philosophy.**

All interested persons are welcome.

MORNA HYATT, *Secretary*