## The Electrodynamical Wave-Theory of Physical Forces

"In view of the many researches heretofore carried out in the theory of wave-motion, it will always seem very extraordinary that earlier investigators were not led to the simple relationship between the mean velocity (») of the Corpuscle of a Monatomic Gas and the Velocity (V) of a wave in the Gas, namely (cf. AN 5079, p. 234) v = 1/2? V (v is supposed to have an over line, its mean velocity)

Yet in reaching this Theorem it was not sufficient merely to notice the geometrical ratio theoretically existing between the paths of oscillating particles describing a semi -circumference while the wave traverses the diameter, which is 1/2 ?: on the contrary, it was deemed necessary, as a physical precaution, to confirm the ratio from the best experimental data of six actual gases, with the following

From this table it follows that for the six best determined actual gases, the theorem v (mean velocity) = 1/2?V holds true; and on treating the Aether as a Monatomic Gas, we find the velocity of the Aetherons to be 471239 kms per second, or 294000 miles. The Aetheron therefore is the most rapidly moving object in the Universe, the mean velocity being 23.5 times the maximum velocity of the Electron, according to Crowther, 1914. Accordingly whatever be the importance of the Electron in physical theory and experimentation that of the Aetheron is enormousty greater and will always so remain so long as Wave Motion is studied." [TJ] See 1922, The Electrodynamic Wave Theory of Physical Forces Volume Two, New Theory of The Aether]