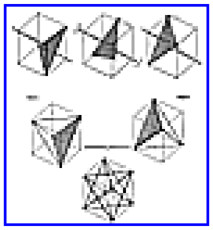

[Fig. 462.00](#)

462.00 **Rotation of Triangle in Cube**

462.01 To comprehend the complex of transformings demonstrated by the jitterbug we may identify each of the eight triangles of the vector equilibrium with the eight small cubes which comprise a two-frequency large cube's eight corners. When the jitterbug transforms into an octahedron, the jitterbug vector equilibrium's six square faces disappear leaving only the eight triangles of the vector equilibrium, each of which has moved inwardly at a symmetrical rate toward the common center of the vector equilibrium as the squares disappear and the triangles approach one another until their respective three edges each become congruent with one another, thus doubling their vector edges together in paralleled congruence. Since each of the eight triangles behaved the same way as the others we can now study how one behaved and we find that each triangle "did its thing" entirely within the domain of one of the eight cubes of the two-frequency big cube. Thus we learn that a triangle can rotate within the topological lines of a cube with the triangle's three corners being guided by the cube's edges.

462.02 Wave-propagating action is cyclically generated by a cube with a triangle rotating in it.

463.00 **Diagonal of Cube as Wave-Propagation Model**

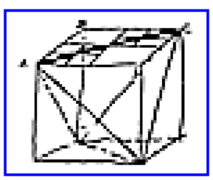

Fig. 463.01

463.01 There are no straight lines, only waves resembling them. In the diagram, any zigzag path from A to C equals the sum of the sides AB and BC. If the zigzag is of high frequency, it may look like a diagonal that should be shorter than ABC. It is not.

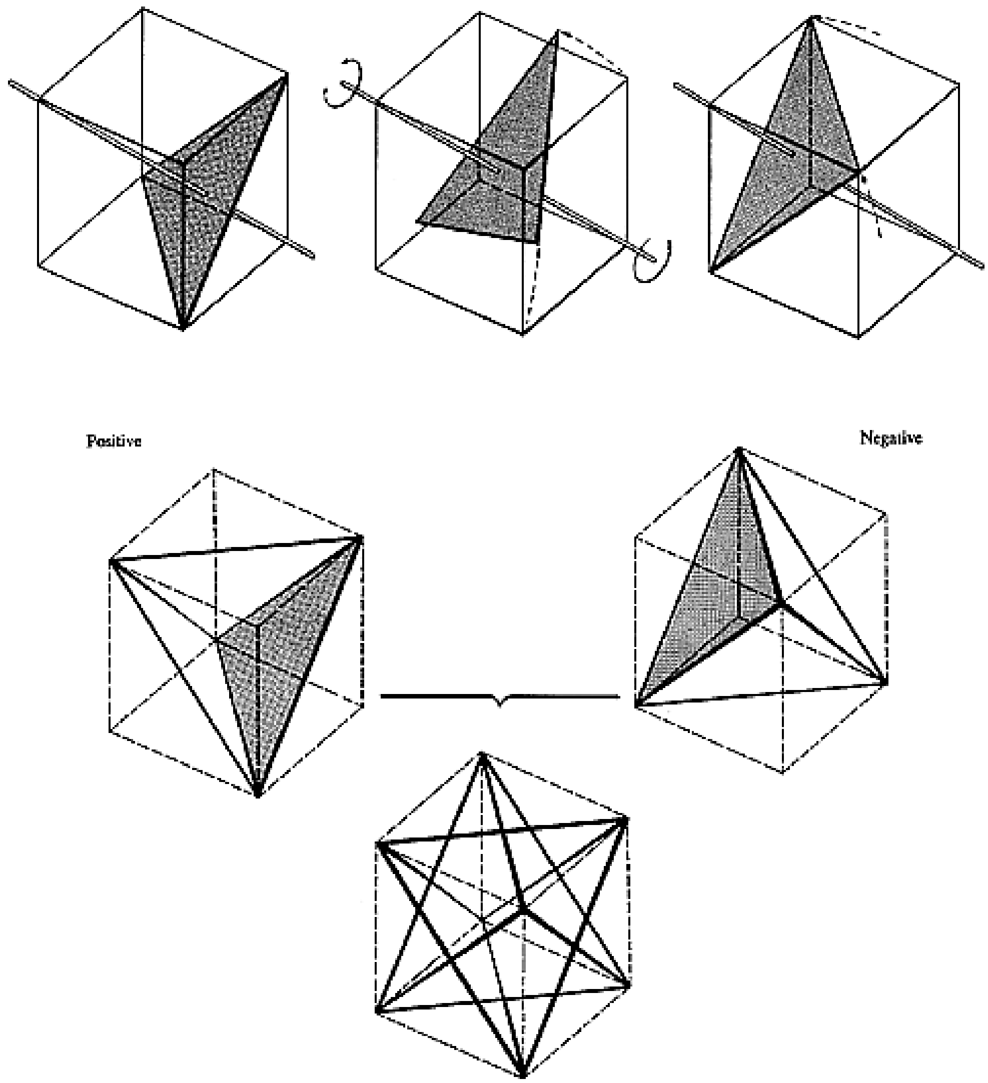

Fig. 462.00 The triangle formed by connecting diagonals of three adjacent faces of the cube is the face of the tetrahedron within the cube. If the triangle is rotated so that its vertexes move along the edges of the cube, its position changes from the positive to the negative tetrahedron. Two equal tetrahedra (positive and negative) joined at their common centers define the cube. The total available energy of a system is related to its surface area, involving the second power (square) of the radius. $E=Mc^2$: The conjunction of any two similar systems results in a synergetic relationship: the second power of individual totals of cohesiveness of the systems.

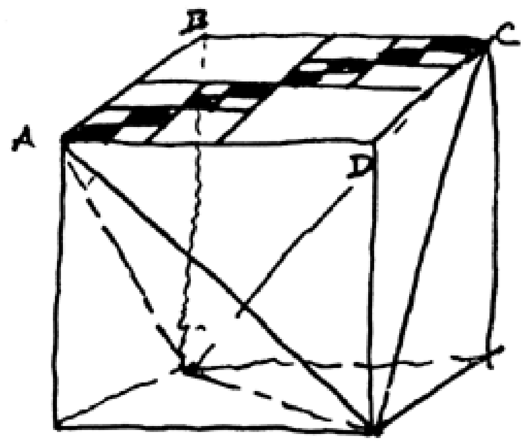

Fig. 463.01 There are no straight lines, only waves resembling them. In this diagram, any zigzag path from A to C equals the sum of the sides AB and BC. If zigzag is infinitely small, it looks like a diagonal that should be shorter than ABC. It is not.

463.02 As the triangle rotates in the cube, it goes from being congruent with the positive tetrahedron to being congruent with the negative tetrahedron. It is an oscillating system in which, as the triangles rotate, their corners describe arcs (see Sec. 464.02) which convert the cube's 12 edges from quasistraight lines to 12 arcs which altogether produce a dynamically described sphere (a spherical cube) which makes each cube to appear to be swelling locally. But there is a pulsation arc-motion lag in it exactly like our dropping a stone in the water and getting a planar pattern for a wave (see Sec. 505.30), but in this model we get an omnidirectional wave pulsation. This is the first time man has been able to have a conceptual picture of a local electromagnetic wave disturbance.

463.03 The cube oscillates from the static condition to the dynamic, from the potential to the radiant. As it becomes a wave, the linear becomes the second-power rate of grc wth. The sum of the squares of the two legs = the square of the hypotenuse=the wave. The 12 edges of the cube become the six diagonals of the tetrahedron by virtue of the hypotenuse: the tetrahedron is the normal condition of the real (electromagnetic) world. (See Sec. 982.21.)

463.04 There is an extraordinary synergetic realization as a consequence of correlating (a) the arc-describing, edge-pulsing of cubes generated by the eight triangles rotating in the spheres whose arcs describe the *spherical cube* (which is a sphere whose volume is 2.714—approximately three—times that of the cube) and (b) the deliberately nonstraight line transformation model (see Sec. 522), in which the edges of the cube become the six wavilinear diagonals of the cube, which means the cube transforming into a tetrahedron. Synergetically, we have the tetrahedron of volume one and the cube of volume three—as considered separately—in no way predicting that the cube would be transformed into an electromagnetic-wave-propagating tetrahedron. This is an energy compacting of $3 \rightarrow 1$; but sum-totally this means an energetic-volumetric contraction from the spherical cube's volume of 8.142 to the tetrahedron's one, which energetic compacting serves re-exp—nsively to power the electromagnetic-wave-propagating behavior of the wavilinearedged tetrahedron. (See Sec. 982.30.)

463.05 We really find, learning synergetically, from the combined behaviors of the tetrahedron, the cube, and the deliberately-nonstraight-line cubical transformation into a tetrahedron, how the eight cubical corners are self-truncated to produce the vector equilibrium within the allspace-filling cubical isotropic-vector-matrix reference frame; in so doing, the local vacatings of the myriad complex of closest-packing cube truncations produce a "fallout" of all the "exterior octahedra" as a consequence of the simultaneous truncation of the eight comers of the eight cubes surrounding any one point. As we learn elsewhere (see Sec. 1032.10), the *exterior* octahedron is the contracted vector equilibriurn and is one of the spaces between spheres; the octahedron thus becomes available as the potential alternate new sphere when the old spheres become spaces. The octahedra thus serve in the allspace-filling exchange of spheres and spaces (see Sec. 970.20).

464.00 **Triangle in Cube as Energetic Model**

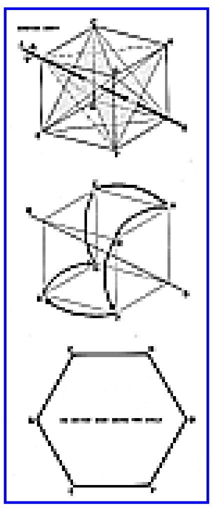

Fig. 464.01

464.01 The triangle CDE formed by connecting the diagonals of the three adjacent square faces surrounding one corner, A, of the cube defines the base triangular face of one of the two tetrahedra always coexisting within, and structurally permitting the stability of, the otherwise unstable cubic form. The triangle GHF formed by connecting the three adjacent faces surrounding the B corner of the same cube diametrically, i.e. polarly, opposite the first triangulated corner, defines the triangular face GHF of the other of the two tetrahedra always coexisting within that and all other cubes. The plane of the green triangle CDE remains always parallel to the plane of the red triangle GHF even though it is rotated along and around the shaft AB (see drawings section).

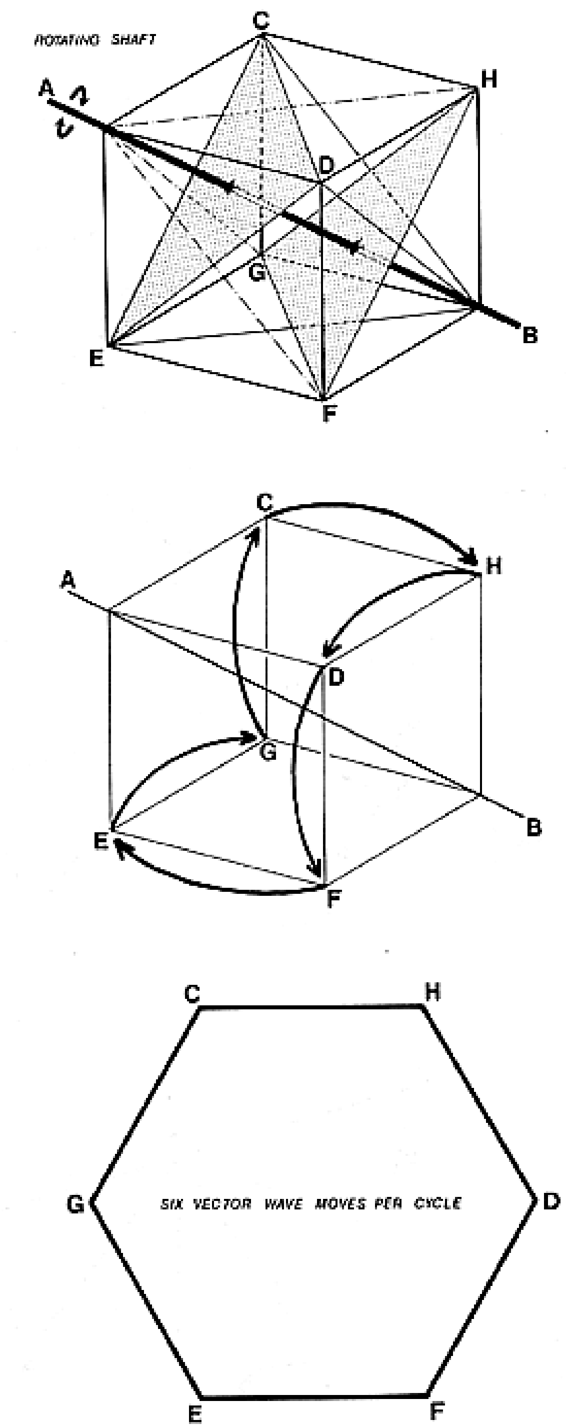

Fig. 464.01 Triangle in Cube as Energetic Model: The rotating shaft is labeled AB. The model demonstrates that there are six vector moves per cycle.

464.02 If the first triangle CDE defined by the three diagonals surrounding the A corner of the cube is rotated on the axis forrned by the diagonal leading from that corner of the cube inwardly to its polarly opposite and oppositely triangled B corner, the rotated triangle maintains its attitude at right angles to its axis, and its three vertexes move along the three edges of the cube until the green triangle reaches and become congruent with the red base triangle of the axially opposite corner. Thereafter, if the rotation continues in the same circular direction, the same traveling triangle will continue to travel pulsatingly, back and forth, becoming alternately the base triangle of the positive and then of the negative tetrahedron. As the triangle returns from its first trip away, its corners follow three additional edges of the cube. As the vertexes of the shuttling triangle follow the six cube edges, their apexes protrude and describe spherical arcs outwardly along the cubes' edges running from cube corner to cube corner. Swift rotation of the triangle's shaft not only causes the triangle to shuttle back and forth, but also to describe six of the 12 edges of the spherical cube producing an equatorially spheroid pulsation. The two equal tetrahedra are not only oppositely oriented, but their respective volumetric centers (positive and negative) are congruent, being joined at their common centers of volume, which coincide with that of the containing cube. Because each cube in the eight-cube, two-frequency big cube has both a positive and a negative tetrahedron in it, and because each tetrahedron has four triangular faces, each cube has eight equilateral triangular edges corresponding to the 12 diagonalling hypotenuses of each cube's six faces.

464.03 Each cube has four pairs of polarly opposite corners. There are four co-occurring, synchronously operative, triangularly shuttleable systems within each cube; with all of them synchronously operative, the cube's 12 edges will be synchronously accommodating— $4 \times 6 = 24$ —edge-arcings traveling 12 positively and 12 negatively, to produce the profile of two spherical cubes, one positive and one negative.

464.04 Each vector equilibrium, when complemented by its coexistent share of one- eighth of its (concave) external octahedra, embraces eight cubes, each of which has four activable, axially shuttleable, electromagnetic-energygenerating potentials.

464.05 Eight of these triangular shuttle cubes may be completed on each of the vector equilibrium's eight triangular faces by adding one 1/8th-Octa comer to each of them. Each 1/8th-Octa corner consists of six A and six B modules. As one such l/8th-Octa, 6A-6B moduled, 90°-apexed, equianglebased, isosceles tetrahedron is added to any of the vector equilibrium's eight triangular faces, which contain the potential new nucleus— which thus becomes a newborn active nucleus—when so double-layer covered by the 12 A's and 12 B's energy modules, which altogether produce a total of 24 energy modules whenever the rotating triangle alternates its position, which combined 24 modules correspond to the 24 energy modules of one whole regular tetrahedral event, which is the quantum in nuclear physics.

464.06 The vector equilibrium's jitterbugging conceptually manifests that any action (and its inherent reaction force) applied to any system always articulates a complex of vector-equilibria, macro-micro jitterbugging, invllving all the vector equilibria's ever cosmically replete complenentations by their always co-occurring internal and external octahedra—all of which respond to the action by intertransforming in concert from "space nothingnesses" into closest-packed spherical "somethings," and vice versa, in a complex threeway shuttle while propagating a total omniradiant wave pulsation operating in unique frequencies that in no-wise interfere with the always omni-co-occurring cosmic gamut of otherly frequenced cosmic vector-equilibria accommodations.

464.07 In contradistinction to the sphere, the tetrahedron has the most surface with the least volume of any symmetrical form. The total available energy of a system is related to its surface area, involving the second power of the radius. $E = Mc^2$. The mass congruence of any two similar systems results in a synergetic relationship with a second- powering of cohesiveness of the joined systems. This releases the fourfolded energy, which no longer has the two tetrahedra's mass-interattraction work to do, and this in turn releases the energies outward to the tetrahedra's highest-capacity surfaces. And since surface functions as the electromagnetic-energy carrier, and since the energy relayed to their surfaces alternates from the positive to the negative tetrahedron, and since the distance between their surface centers is only two A Module altitude wavelengths (each of which two A Module altitudes constitute and serve as one generalized electromagnetic wavelength with generatable frequency beginning at two), the rotation of the triangle within the cube passes through the common energy centers of the two tetrahedra and delivers its content to the other base surface, after which it pulses through center delivery of the opposite charge to the other surface, which altogether propagates potentially exportable, frequency-determinate, electromagnetic energy. The six cube-edge travelings of the triangles' vertexes accomplished with each cycle of the triangle-in-cube shuttle coincides in number and is akin to the six vector edges comprising one tetrahedral quantum; the sixness of wavilinear and sometimes reangularly redirected traveling employs also the six basic degrees of freedom articulated by each and every one *cosmic event.*

464.08 Thus we realize conceptually the ever-self-regenerative, omniidealized, eternal integrity of the utterly metaphysical, timeless, weightless, zerophase geometric frame of transformations referencing function, which is served by the vector equilibrium in respect to which all the aberrational dimensioning of all realization of the variety of relative durations, sensorial lags, recalls, and imaginings are formulatingly referenced to differentiate out into the special-case local experiences of the eternal scenario Universe, which each of us identifies to ourselves as the "Shape of Things" and which each individual sees differently yet ever intuits to be rigorously referenced to an invisibly perfect prototype in pure principle, in respect to which only approachable but never realizable "understanding" of one of us by others occurs: "And it Came to Pass."

Next Section: 465.00
