

Sympathetic Vibratory Physics

Keely's Musical Dynasphere

by

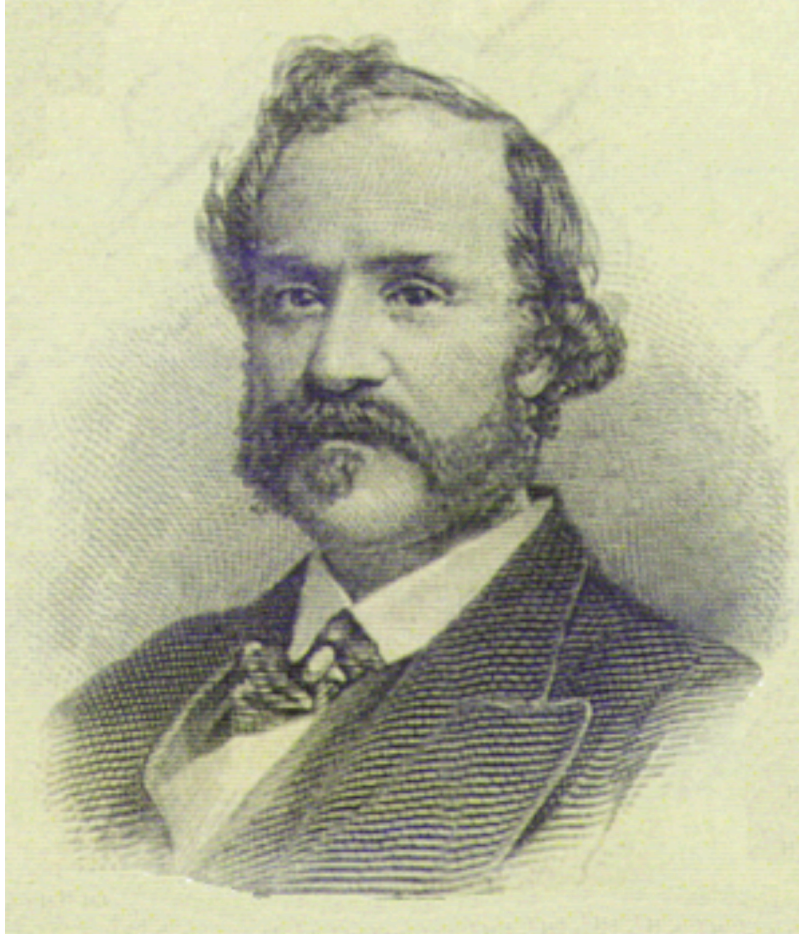
John Worrell Keely & Dale Pond

*Revised edition 11/24/04
Added color and several images.*

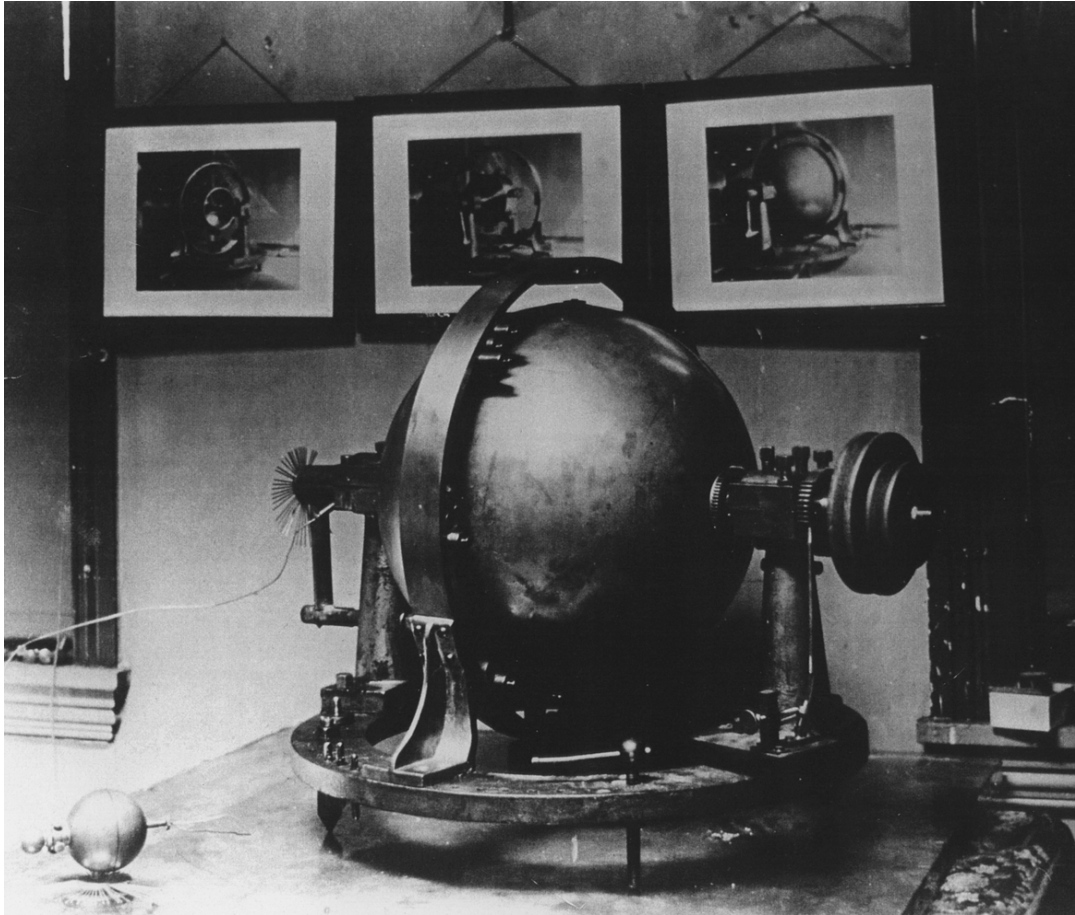
"My system, in every part and detail, both in the developing of this power and in every branch of its utilization, is based and founded on *sympathetic vibration*. In no other way would it be possible to awaken or develop this force, and equally impossible would it be to operate my engine upon any other principle."

John Keely, 1888

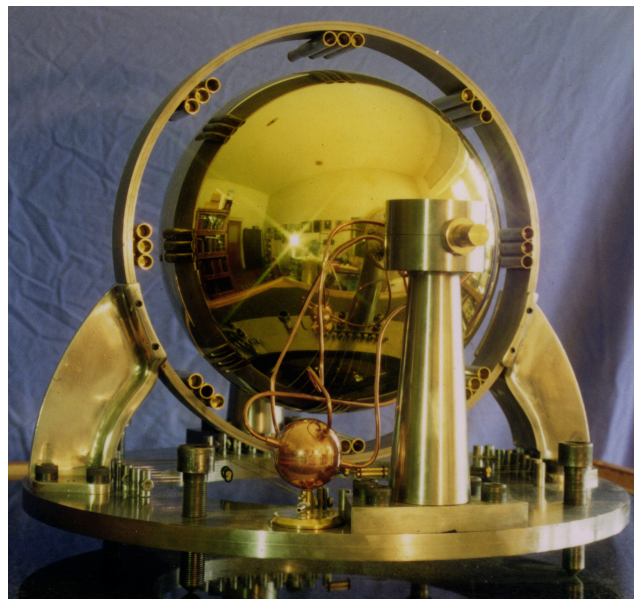
Copyright & Copyright 2004 *Delta Spectrum Research*. All rights reserved. This material may not be published, broadcast, rewritten, or redistributed.



John Ernst Worrell Keely
(1827-1898)



Keely's Original Dynasphere above. A more recent dynasphere below.



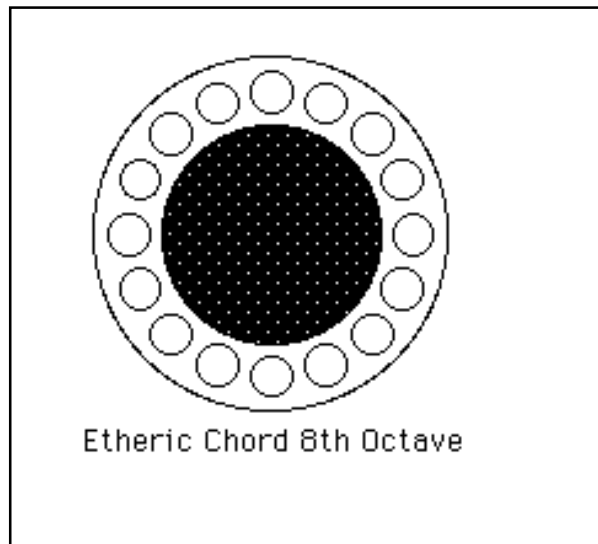
THEORY OF THE INDUCTION OF SYMPATHETIC CHORDS TO EXCITE ROTATION BY VIBROPHONIC TRAJECTION TO AND FROM CENTERS OF NEUTRALITY ON REVOLVING GLOBE

John Ernst Worrell Keely

"All hollow spheres, of certain diameters, represent, as per diameters, and their volumes of molecular mass, pure, unadulterated, sympathetic resonance towards the enharmonic and diatonic thirds of any, and in fact all, concordant sounds. In tubes it is adversely different, requiring a definite number of them so graduated as to represent a confliction by thirds, sixths and ninths, as towards the harmonic scale. When the conditions are established, the acoustic result of this combination, when focalized, represents concordant harmony, as between the chord mass of the instrument to be operated and the

chord mass of the tubes of resonance. Therefore the shortest way towards establishing pure concordance, between any number of resonating mediums, is by the position that Nature herself assumes in her multitudinous arrangements of the varied forms and volumes of matter -- the spherical. The great difficulty to overcome, in order to get a revolution of the same sphere, exists in equating the interior adjuncts of same. In other words, the differentiation induced must be so equated as to harmonize and make their conditions purely con-

cordant to the molecular mass of the sphere. Example: Suppose the chord of the sphere mass represents B flat, or any other chord, and the internal adjuncts by displacement of atmospheric volume differentiates the volume one-twentieth, this displacement in the shell's atmospheric volume would represent



an antagonistic twentieth against the shell's mass concordance, to equate which it would be necessary to so graduate the shell's internal adjuncts as to get at the same chord; an octave or any number of octaves that comes nearest to the concordance of the shell's atmospheric volume. No intermediates between the oc-

taves would ever reach sympathetic union.

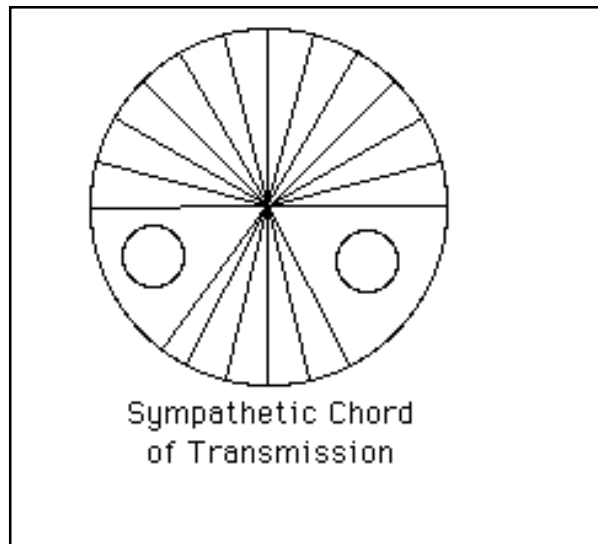
We will now take up the mechanical routine as associated with adjuncts of interference and follow the system for chording the mechanical aggregation in its different parts, in order to induce the transmissive sympathy necessary to perfect evolution and produce revolution of the sphere or shell.

Example: Suppose that we had just received from the machine shop a spun shell of twelve inches internal diameter, 1/32 of

an inch thick, which represents an atmospheric volume of 904.77 cu. in. On determination by research we find the shell to be on its resonating volume B flat, and the molecular volume of the metal that the sphere is composed of, B natural. This or any other antagonistic chord, as between the chord mass of the shell and its atmospheric volume, would not interfere but would come under subservience. We now pass a steel shaft through its center 1/2 inch in diameter, which represents its axial rest. This shaft subjects the atmospheric volume of the shell to a certain displacement or reduction,

to correct which we first register the chord note of its mass, and find it to be antagonistic to the chord mass of the shell, a certain portion of an octave. This must be corrected. The molecular volume of the shaft must be reduced in volume, either by filing or turning, so as to represent the first B flat chord that is reached by such reduction. When this is done the first line of interference is neutralized, and the condition of sympathy is as pure between the parts as it was when the globe was minus its axis. There is now introduced on its axis a ring which has seven tubes or graduating resonators, the ring being 2/3 the diameter of the globe, the resonators three inches long and 3/4 in. diameter, each one to be set on the chord of B flat, which is done by sliding the small diaphragm in the tube to a point that will indicate B flat. This setting then controls

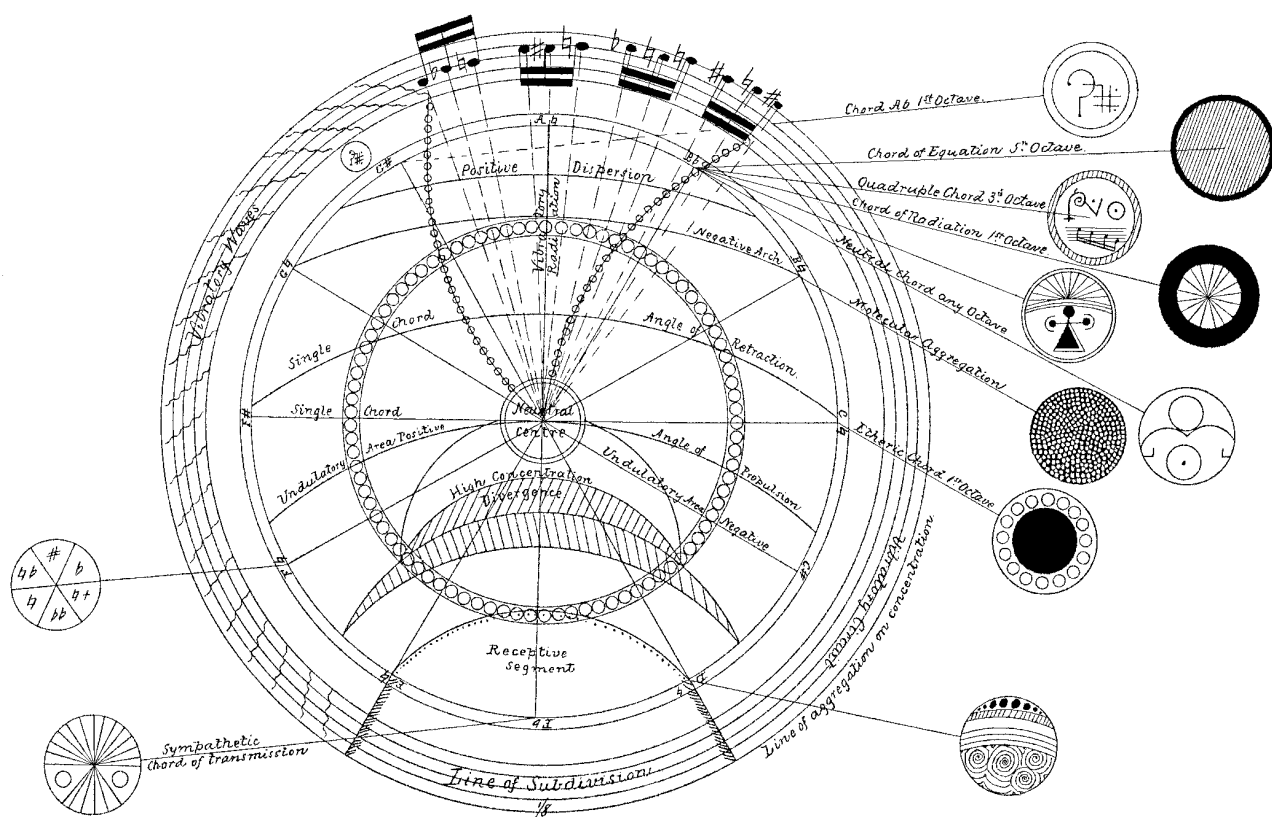
the metallic displacement of the metallic combination, as also the arms necessary to hold the ring and resonators on the shaft or axis. Thus the second equation is established, both on resonance and displacement. We are now ready to introduce the diatonic scale ring of three octaves which



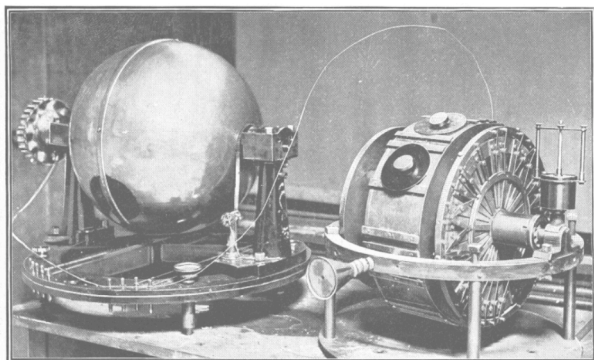
is set at two-thirds of the scale antagonistic to the chord mass of the globe itself. This is done by graduating every third pin of its scale to B flat, thirds, which represent antagonistic thirds to the shell's molecular mass. This antagonism must be thoroughly sensitive to the chord mass of one of the hemispheres of

which the globe is composed. The axis of the scale ring must rotate loosely on the globe's shaft without revolving with the globe itself, which it is prevented from doing by being weighted on one side of the ring by a small hollow brass ball, holding about two ounces of lead. The remaining work on the device is finished by painting the interior of the globe, one hemisphere black and one white, and attaching a rubber bulb such as is used to spray perfume, to the hollow end of the shaft. This bulb equates vibratory undulations, thus preventing an equation of molecular bombardment on its dark side when sympathetically influenced. It is now in condition to denote the *sympathetic concordance between living physical organisms*, or the receptive transmittive concordance necessary to induce rotation."

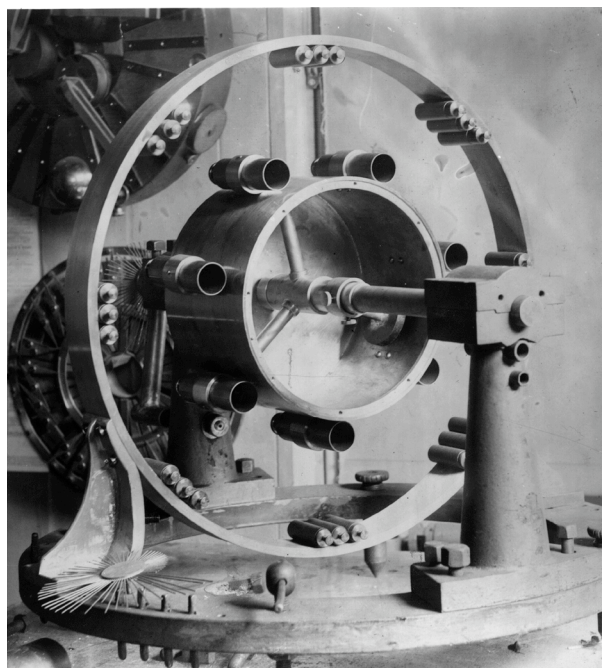
Key to Vibratory Rotation



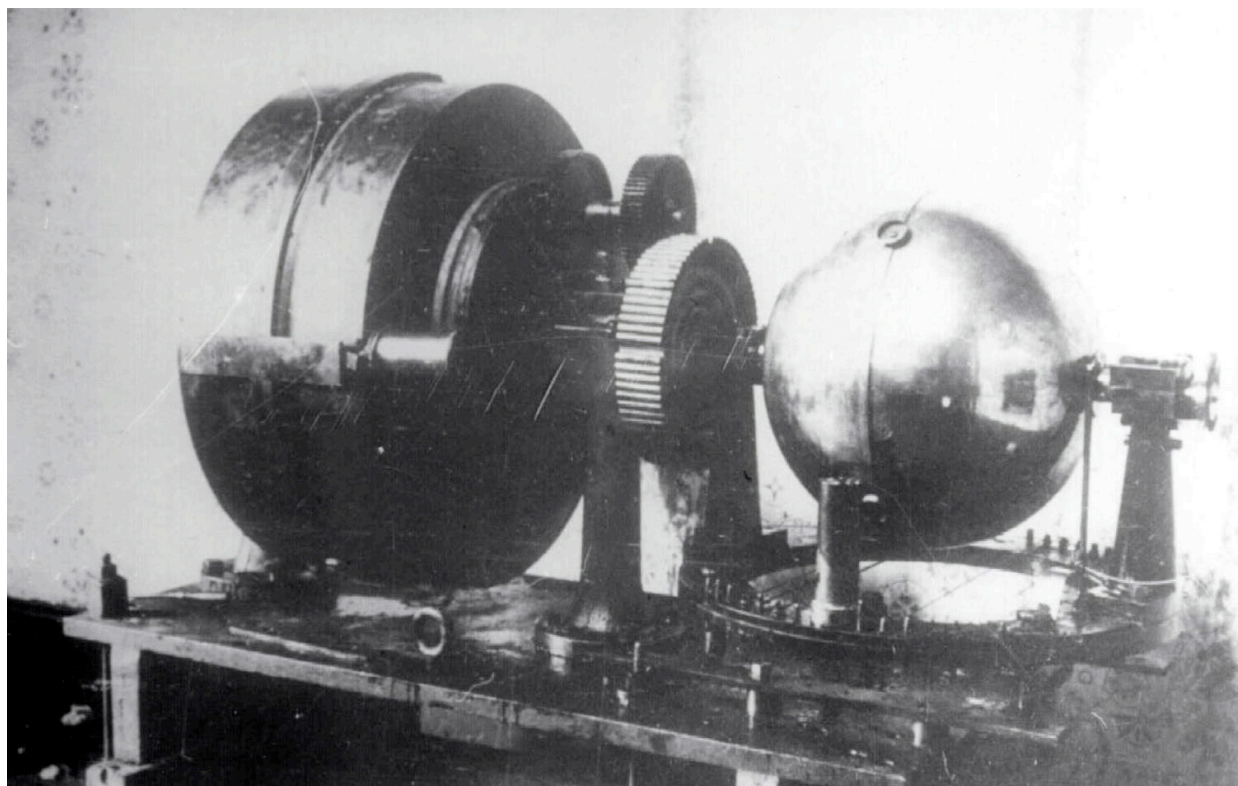
Designed by
JOHN W. KEELY.
 January 1886



GLOBE MOTOR AND PROVISIONAL ENGINE.



Globe Motor with some kind of dynamo (upper left). Inside view of Keely's original Dynasphere (upper right). Another view of Globe Motor with a different kind of dynamo (below).



PHILOSOPHY OF TRANSMISSION AND ROTATION OF MUSICAL SPHERE

John Ernst Worrell Keely

"The only two vibratory conditions that can be so associated as to excite high sympathetic affinity, as between two physical organisms are: Etheric chord of B flat, 3rd octave, and on Etheric sympathetic chords transmission E flat on the scale 3rd, 6ths, and 9ths, octaves harmonic, having the 3rd dominant, the 6th enharmonic and the 9th diatonic.

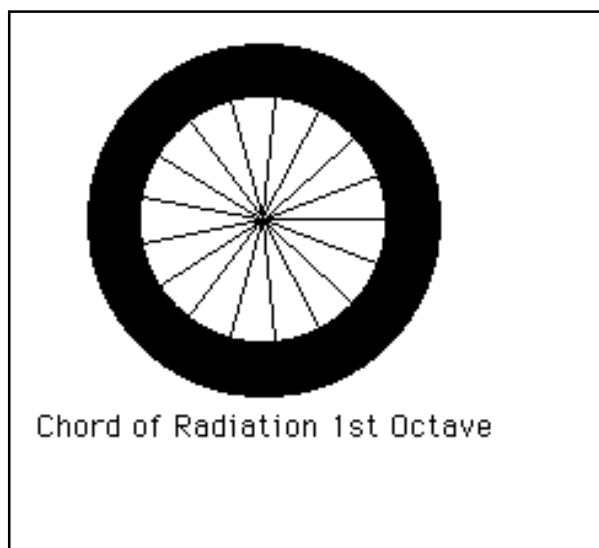
The chord mass representing the musical sphere, being sympathetic etheric chord of B flat third octave, indicated by the focalization of its interior mechanical combination, as against the neutral sevenths of its atmospheric volume, makes the shell highly sensitive to the reception of pure sympathetic concordance, whether it be physical, mechanical, or a combination of both. Taking the chord mass of the different mechanical parts of the sphere and its adjuncts, as previously explained, when associated and focalized to represent pure concordance, as between its atmospheric volume and sphere mass, which means the pure unit of concordance, we have the highest position that can be established in relation to its sympathetic susceptiveness to negative antagonism. The beauty of the perfection of the laws that govern the action of Nature's sympathetic flows is here demonstrated in all the purity of its workings actually requiring antagonistic chords to move and acceler-

ate. The dark side of the shell, which represents fifty per cent of its full area of concordant harmony, is the receptive area for the influence of the negative transmissive chords of the thirds, sixths and ninths to bombard upon, which bombardment disturbs the equilibrium of said sphere, and induces rotation. The rotation can be ac-

celerated or retarded, according as the antagonistic chords of the acoustic forces are transmitted in greater or lesser volume. The action induced by the mouth organ, transmitted at a distance from the sphere without any connection of wire, demonstrates the purity of the principle of sympathetic transmission as negatized or disturbed by discor-

dants, which, focalizing on the resonating sevenths of resonators, or tubes attached to ring, the sympathetic flow is by this means transmitted to the focalizing center, or center of neutrality, to be redistributed at each revolution of sphere, keeping intact the sympathetic volume during sensitization, thus preventing the equation or stoppage of its rotation.

Again, the sphere resting on its journals in the ring, as graduated to the condition of its interior combinations, represents a pure sympathetic concordant under perfect equation to receive the sympathetic, or to reject the non-sympathetic. If a pure sym-



pathetic chord is transmitted coincident to its full combination, the sphere will remain quiescent, but if a transmission of discordance is brought to bear upon it, its sympathetic conditions become repellant to this discordance." Keely.

Hertz conjectures that a knowledge of the structure of ether should unveil the essence of matter itself, and of its inherent properties, weight and inertia. Hertz constructed a circuit, whose period of vibration for electric currents was such that he was able to see sparks due to the increased vibration leaping across a small airspace in this resonating circuit, his experiments have proved and demonstrated the ethereal theory of electromagnetism; that electromagnetic actions are due to a medium pervading all known space. Keely's experiments have proved that all things are due to conditions of the Ether. The Buddhists have taught "There is no such thing as blind or dead matter, as there is no blind or unconscious thought." (1)

1890 - The steam engines of the world now represent the work of 1,000,000,000 men, or more than double the working population of the earth, whose total population is about 1,500,000,000 inhabitants. Steam has trebled man's working power, enabling him to economize his physical strength. Our race which seems to have reached its limit of physical development, seems ready to enter upon the foretold stage of psychically evolution. (2)

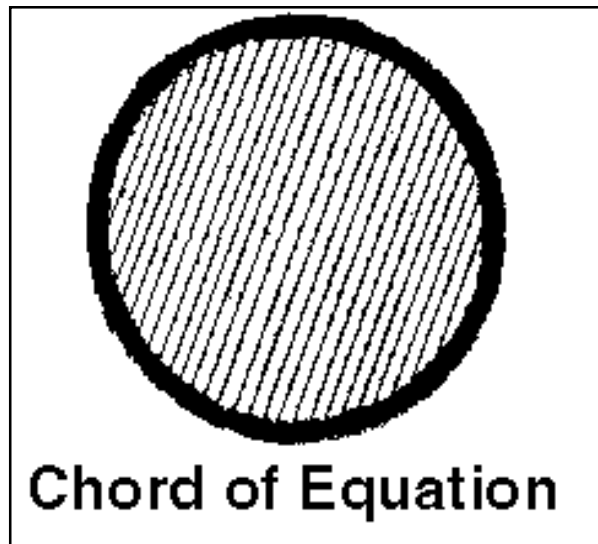
ROTATION FROM VIBRATION

"Rotation arises through the harmonic interactions of the dominant and enharmonic modes of vibration, in the ratio of 3:9. To produce and control rotational force for commercialized energy, we must control through its properties, the negative attractive or enharmonic current. This will solve the problems up to any limit of power."

"Power of rotation comes on the positive and power of negation, arising when the receptive flows become independent of the circular chord of resonance (set up mechanically or otherwise) breaks up the rotational power. Rotation is caused by the receptive concus-

sion of the positive and negative forces as they come together at the neutral center and as each seeks its "coincident" by harmonic waves, flows or streams."

Every body capable of rotation is susceptible to the operation of force, which, applied, impels motion. Receptive transmittive concordance induces rotation. This simply means - *the reception of streams of energy by the neutral center, and the transforming of them into radiant outflowing streams of energy causes rotation of the molecule or mass.* All the magnets in the world, no matter how differentiated cannot induce rotation, but polar negative attraction induces rotation. The earth's rotation is caused and kept in continuance by the action of the positive and negative sympathetic celestial streams, that is, by the inflowing celestial from the sun and the outflowing radiant celestial dispersing this same energy to all planetary masses in space.



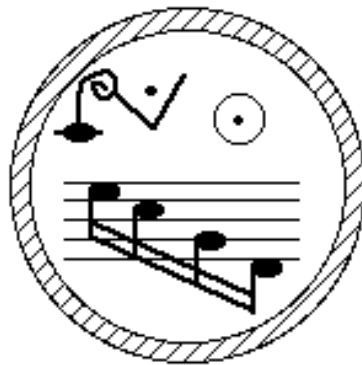
"Polar and depolar differentiation result in motion. The compound interetheric or seventh subdivision is the Soul of Matter, from which all forms of matter receive their introductory impulse."

The *neutral center* represents only focalization and distribution of the streams of energy. It is not associated with magnetism. When the radiant elements generated by the focalizing chord are submitted to compound vibration of their mass thirds, those radiant elements become magnetic and rotation ceases. (Perhaps the rotation is transformed to polar sector rotation of these streams). Rotation is induced by submitting the mass to three different orders of vibration simultaneously, giving the majority to the harmonic third. (1)

When we rotate a mass with sufficient rapidity, the particles of that mass ultimately overcome cohesion by dispersing as fragments at a tangent but should we cause rotation of the ether, this would produce condensation, which is opposite in effect. This condensation effect increases with the velocity of rotation of the ether. This is the direct cause of formation of molecules as well as planetary masses."

At the same time Keely was completing his third system, he was also completing an experimental sphere in which he intended to test the combination of the positive and negative rotation. This experiment was at least entirely successful which showed the explanation of rotation given above, to be correct. The sphere even rotated with

physical vibrations from the positive and negative interchange of positive and negative waves - not streams in this case. He had a desperate struggle in seeking to learn these laws of polarization and depolarization. It was necessary for him to understand these laws before he could unfailingly secure rotation and control the reversions which so often had made wrecks of his machines. (1)



Quadruple Chord 3rd Octave

In November 1884, he obtained a standard for progressive research in the success of an experiment, for which he has tried many times before without arriving at result of his theories. One of those present afterwards wrote him for

an explanation of the phenomena. A small globe rotated when two persons had taken hold of the rod together, with a firm grasp - one of them standing on a circular sheet of metal, from which piano wires stretched toward the globe, near enough to touch one of the plates of glass which insulated the ball, Mr. Keely replied, "I cannot describe it other than the receptive concussion of the two forces, positive and negative, coming together, seeking their coincidents and thus producing rotation by harmonious waves, not streams. You ask if sound waves had anything to do with the motion of the globe? Nothing, the introductory settings are entirely different. The ball ceased to rotate when I took your left hand in my right hand, while with our other hands holding the iron rod resting on the metal plate, because the receptive flows became independent of the circular chord of resonance as set up mechanically. The power of rotation comes on the positive and the power of negation breaks it up." (2)

Excerpts From Original Articles About Keely's Globe Motor or Musical Sphere

From *The Dynamic Theory of Life and Mind*, 1893; *Radiometer Motion*: Caused to rotate by currents or swirls set up in the gaseous medium within the globe. This is demonstrated when different speeds are obtained as different gases are introduced within the globe, the light remaining constant. Red light causes the most action.

From *Dashed Against The Rock*: "On this rude harmonious trumpet this magician [Keely] blows through a small window into the next room towards a common zither some ten feet distant, held upright on a table by a small standard composed of a group of metal tubes. The two musical instruments have been carefully attuned to each other. Attached to the back of the zither is a common silk thread loosely hanging and extending some eight feet away, where it is tied to a movable framework of half-inch iron rods, supporting and bracing in position, on an isolated table of glass, a metal globe, fifteen inches in diameter, capable of turning freely in either direction, on its axis, which bears inside the globe certain resonant tubes and plates, the table standing at an angle of 45 degrees from the face of the zither.

"Louder sounds the horn, till in a minute or two the metal globe begins to revolve. The horn stops, the globe stops. Again the horn resounds, again the globe turns, and the stronger and more continuous the blast, the more swiftly whirls the globe. You snip the thread apart with your scissors, and the ear of the globe has grown dull; no sound can awake it to motion again. Does a man need to be an expert in physics after he has seen that marvel repeated a few times, and has moved all the apparatus freely hither and thither, to testify that the rapid revolution of that metal globe was not caused by compressed air, coming in concealed tubes from a hidden reservoir, or that a silk thread is not the highway usually cast up for electricity to travel?"

"Here is a wheel of stout metal weighing, as stated, seventy-two pounds, free to move either way on its stationary axis. Its hub is a cylinder containing certain resonant tubes parallel to the axis. It has eight spokes, each carrying one of the 'vitalized discs' at its outer end, the face of the disc at right angles with the spoke. There is no rim to the wheel, but there is a stationary metal rim some six inches wide and thirty-two inches in diameter, within which the wheel turns without touching it. This rim carries on its inner surface nine similar discs, and on the outside, attached to each disc, a resonating cylinder. The requisite amount of the metallic volume of this cylinder is obtained by enclosing in its tubes a few cambric needles, more or less as required, and curiously enough, some of these needles at length become magnetic.

"Attached to this engine is a gold and platinum wire, some ten feet in length, running through the small window to the copper globes in the other room, where sits

the man who has fashioned all this.

"He twangs the rods of the sympathetic transmitter on the table at his side, he turns its knob, the musical instruments sound for a moment, and peering through the window along the line of the wire his face lights up with a smile of triumph. He settles back in his chair, and all is still. That wheel at the end of the wire is in rapid revolution before your eyes."

"Long we stand around that flying wheel. The friend who photographed it at rest again levels his camera upon it. In vain; its spokes cannot tarry long enough to be caught by his snare. It is still as death, and almost as mysterious. We listen to long dissertation upon the reason for the relative position of the eight discs on the wheel and the nine on the stationary rim, and how the adjustment can be so altered that, instead of a revolution, there will be a violent oscillation back and forth.

"We are shown the corresponding wheel and the rim of the large engine close by, which is to bear the discs not singly, but in groups, the steel resonating drums with their circle of tubes inside, and thirty-five inch Chladni plate underneath the 'sympathetic transmitter' on top; the extra wheel bearing on its spoked cylindrical cases, each filled solid with a hundred thin carved plates of steel, to get the utmost superficial area, we are told, and it is all so utterly beyond comprehension, that we can see no reason why it should have been made as it is, or how any one can be sure it will ever run.

"But we turn around and look again on that noiseless wheel, still running rapidly all alone, and confess we should have said the same thing about that. And we are inclined then to trust the word of the inventor when he says the running of the smaller insures the running of the larger; that the wheel you see spinning so fast cannot be stopped by any force except one that would tear it into fragments, unless with thumb and finger you loosen that golden wire along which 'the stream of sympathetic vibration' is said to flow, and that there is no reason why the wheel should not keep in motion till the bearings wear out."

From *Snell Manuscript*: In November, 1884 he [Keely] demonstrated successfully an experiment which he had worked out theoretically but which had failed on several previous attempts. Two persons took firmly hold of an "iron rod". One person stood on a circular sheet of metal, from which piano wire stretched to, and touched, a plate of glass, which in turn insulated a small globe. The description given, indicates the globe was centered axially on the iron rod. Another glass plate insulated the globe, presumably on the other hand. The globe rotated when both persons, took hold of the opposite ends of the iron rod, and rotation ceased when Keely, who was one of the operators, took hold of the other operator's left hand with his right hand. Keely stated the reason for this to be "The reception flows became independent of the circular chord of resonance set up mechanically. The power of rotation comes on the positive and power of negation breaks it up." He stated the reason the sphere revolved was because of the "receptive concus-

sion of two forces, positive and negative, coming together, seeking their coincidents, producing rotation by harmonious waves, not by harmonious streams in this case." He stated the introductory settings were entirely different from those of the musical sphere and that sound waves had nothing whatever to do with rotation of the globe.

From *Snell Manuscript*: His revolving musical globe, which seems to have been the only successful instrument in continuous operation, which he ever made, he never considered or intended to be used as a source of power. It was only constructed to prove the correctness of his theory regarding sound and for demonstration purposes.

New York Times, *Keely Motor Humbug*, June 8, 1885: In rotating the globe which he calls his engine, Keely was unconsciously very amusing. Before starting the thing he did much fixing and fussing. He had added a new cylinder to his collection of reservoir of force, and, while he pretended to adjust nuts and tubes, the rush of escaping vapor was distinctly noticed. It sounded just like the charging of a compressed air chamber, and it took about half an hour or so for its accomplishment. The globe required hardly any force to remove it. The TIMES'S reporter tested this by causing it to revolve quickly by simply pressing a finger on it. Its revolution by Keely's force was remarkable simply because of the unsteady manner in which it was done. For a minute or two it revolved very rapidly, and by means of a pulley and belting the force was transmitted to a band saw which cut through a few inches of planking. It was soon stopped, however, and the revolutions were only resumed at the earnest solicitation of the reporter. Who asked to have it work a half an hour. The thing was started again amid impatient remarks from the Keely motor stockholders, and the engine did absolutely no work except revolve. No pulley or belting was connected with it. Thus lightened the globe revolved 12 minutes and a few seconds. Its power was, however, perceptibly waning, and Keely stopped it of his own accord.

New York Times, *Keely Spinning Motor*, July 25, 1886: Inventor Keely heretofore given his exhibitions with small machines. The funny-looking copper globe, 48 inches in diameter, filled with "resonators," which he used yesterday, is about three times larger than any machine he has ever used. He said that he could produce 250 horse power with what looked more like washing machine than anything else. A hum of wonderment ran through the little workshop, and then Mr. Keely put resin on his fiddle bow, tuned the forks on the drum of his "liberator," connected a copper tube six feet long and one-eighth of an inch in diameter with a 7-pint cylinder and then connected another copper tube a thirty-second of an inch in diameter and 10 feet long with the engine from the 7-pint cylinder. The sound, liberated from the drum of the "liberator" passed through the first tube into the cylinder and then into the smaller tube, and into the copper globe of the new machine. The bottled chords of the mass which Mr. Keely had chosen for his power yesterday, would run the machine, he said.

Something did run it. The big copper globe revolved faster than any fly wheel or bit of machinery ever seen in motion in a machine shop. The copper globe, 48 inches in diameter, made seven revolutions every second, an independent belt wheel at one end of the copper globe, which Mr. Keely said ran from the sympathy of sound, made 300 revolutions a minute, and its velocity frightened everybody in the room, including Keely, who danced around the shop and told everybody to keep out of the way. The belt wheel and the copper globe went around so fast that they made a noise like the spinning of a huge top. The noise sounded too like the rushing and howling of a furious wind as the copper globe cut the atmosphere, and turned it in dripping water on the floor underneath. The hot little workshop was chilled in two minutes, and then, as Keely, greatly excited, turned the cock of the vibrating tube and made the copper globe calm down to almost a standstill, the capitalists and scientists clapped their hands and took off their hats.

"Ain't that fine, gentlemen!" exclaimed Keelyng, smiling.

"Greatest thing on earth," answered Albert R. Edey, the President of the Keely Motor Company. "Wonderful!" came from a dozen mouths, and then Mr. Keely started the copper globe off again with all its fury. It shook the little workshop from cellar to ceiling and rattled the window panes.

"I can make the screw of a steamer make 6,000 revolutions a minute with this machine," shouted Mr. Keely through the howling of the globe and the belt wheel.

"Then we'll be able to go to Europe in one or two days before long," remarked a man in the audience.

Mr. Keely stopped the engine again and then made the globe revolve in either direction just as he pleased. The bottled sound in the "liberator" was just as strong when he stopped as when he began, and he said the machine would run all day without charging the "liberator" again with a sound from drawing the fiddle bow over the tuning fork. Several tests were made with the lever, which have been described frequently.

When the exhibition was concluded L. H. Taylor, Jr., the broker, moved that a vote of thanks be tendered Mr. Keely. Everybody shouted "Aye," and a ringing applause followed.

Mr. Keely will go away to-morrow for 10 days' rest. Then he will return and study out some vibratory sounds so that he will have the machine more thoroughly under his control. He doesn't know how long it will take him or what the next step will be, but he said the public would hear from him very soon.

Those present were Jacob H. Linville, ex-President of the Keystone Bridge Company, and now President of the Electric Telegraph Company; Dr. Strawbridge, Dr. D. F. Woods, William Boekel, F. A. Holmes, Col. J. E.

Priton, M. Richard, Jr., T. C. Smith, of the Westinghouse Air Brake Company; W. W. Perkins, John S. Muckle, L. H. Taylor, Jr., Henry Smyser, P. S. Dooner, Edward A. Green, Charles B. Collier, and Secretary Schuellesman, of the company, all of this city; and the following from New-York city; Albert R. Edey, President of the Keely Motor Company; Dr. Wilfred Hall and Dr. Hudson, of the Scientific Arena; Dr. George Evans, F. G. Green, C. K. Dutton, Dr. C. M. Richmond, W. Lawty, Augustus Stein, and T. Harper. When the visitors had left Mr. Keely told the reporter that by laying little tubes under ground connected with his engine, if he built a large one, he could run all the machinery in every factory in Philadelphia by simply drawing his fiddle bow once every morning and letting the sound into the copper globe.

The Tribune, *The Keely Motor Craze*, November 30, 188: In the winter of 1875-76 he produced two metallic spheres, one about thirty inches in diameter, hung like an ordinary terrestrial globe, which, he said, would revolve with a force equal to two horse-power, and would continue to run when once started as long as the Centennial Exhibition should be open, and until the thing was worn out by friction. In starting it Keely used to have a blackboard in the room, on which he would write a few figures in chalk in the presence of his dupes, and would say that at a certain time the globe would start - and it did, and would revolve as long as the lookers on remained to see it. Keely pretended to explain this phenomenon by a string of unintelligible jargon; but the point of it all was that he said the thing ran in consequence of its internal mechanical arrangement - or, in other words, that by combining pieces of metal in a certain way power was generated without any other expense than that required to construct the apparatus. Naturally he refused to show the interior construction which did the miracle, but if his statements were true, it existed inside of that globe, and could be produced indefinitely with the result of producing an indefinite amount of horse-power without current expense.

Keely and His Discoveries: Mr. Keely showed control of the ether, inter-atomic subdivision, by graduating the escape of the residue, as he allowed it to discharge itself with a noise like the rushing of steam to an expulsion as gentle as the breathings of an infant. The three subdivision acted simultaneously, showing instantaneous association and disassociation. The sympathetic globe was operated upon, 120 revolutions a second, ceasing the instant that the wire was detached.

Keely and His Discoveries: If Keely's theories are correct, science will in time classify all the important modifications of the one force in nature as sympathetic streams, each stream composed of triple flows. Mr. Keely maintains that the static conditions which the magnetic needle assumes, when undisturbed by any extraneous force outside of its own sympathetic one, proves conclusively that the power of the dominant third, of the triple combination of the magnetic terrestrial envelope, is the controlling one of this sympathetic triplet, and the one towards which all the others co-

ordinate. All the dominant conditions of nature represent the focal centres towards which like surrounding ones become sympathetically subservient. The rapid rotation of the magnetic needle of a compass which Mr. Keely shows in his experiments, rests entirely on the alternating of the dominant alone, which is effected by a triple condition of vibration that is antagonistic to its harmonious flow as associated with its other attendants. A rapid change of polarity is induced, and rapid rotation necessarily follows.

Quoting from Keely's writings, - "The human ear cannot detect the triple chord of any vibration, or sounding note, but every sound that is induced of any range, high or low, is governed by the same laws, as regards triple action of such, that govern every sympathetic flow in Nature. Were it not for these triple vibratory conditions, change of polarity could never be effected, and consequently there could be no rotation. Thus the compounding of the triple triple, to produce the effect, would give a vibration in multiplication reaching the ninth, in order to induce subservience, the enumeration of which it would be folly to undertake, as the result would be a string of figures nearly a mile in length to denote it.

When the proper impulse is given to induce the rotation with pure alternating corpuscular action, the conditions of action become perpetual in their character, lasting long enough from that one impulse to wear out any machine denoting such action, and on the sympathetic stream eternally perpetual. *The action of the neutral or focalizing centres represents molecular focalization and redistribution*, not having any magnetism associated with them; but when the radiating arms of their centres are submitted to the triple compound vibratory force, representing their mass thirds, they become magnetic and consequently cease their rotation. Their rotation is induced by submitting them to three different orders of vibration, simultaneously giving the majority to the harmonic third.

Keely and His Discoveries: Again, Mr. Keely, in explanation of the working of his engine, writes: - In the conception of any machine heretofore constructed, the medium for inducing a neutral centre has never been found. If it had, the difficulties of perpetual motion seekers would have ended, and this problem would have become an established and operating fact. It would only require an introductory impulse of a few pounds, on such a device, to cause it to run for centuries. In the conception of my vibratory engine, I did not seek to attain perpetual motion; but a circuit is formed that actually has a neutral centre, which is in a condition to be vivified by my vibratory ether, and while under operation, by said substance, is really a machine that is virtually independent of the mass (or globe), and it is the wonderful velocity of the vibratory circuit which makes it so. Still, with all its perfection, it requires to be fed with the vibratory ether to make it an independent motor. . . .

Dr. Plum's Visit to Keely's Laboratory, 1893: Here is a wooden table, sometimes covered by a heavy slab of

glass. Standing on the glass or on the wood, and capable of being moved freely upon it, is a metal standard say a foot high, bearing a copper globe about a foot in diameter. Around the base of the standard project horizontally numbers of small metal rods a few inches long, of different sizes and lengths, vibrating like tuning forks when twanged by the fingers. In the hollow globe is a Chladni plate and various metal tubes, the relation which can be altered by turning a projection like a door-knob, on the outside of the globe, at the outer end of a small shaft, round and round to the right or left. This construction is called a 'sympathetic transmitter.' Some two or three feet distant on the table stands a movable metallic cylindrical case, some six inches by eight in size, composed of certain metal resonating tubes, and certain other metal fixtures. You take it all apart and see there is no magnet there. You place on top of this cylinder a small pocket compass, a brass cup of two inches in diameter with its glass face. The needle points north. From the periphery of the globe of the 'sympathetic transmitter' extends a wire of the size of a common knitting-needle, made of gold and silver and of platinum. The free end of this wire is now attached to the cylinder. The needle is still true to the pole. Then the vibrating rods are twanged, the knob is turned, and on a rude harmonicon trumpet for a moment or two certain sounds are made, when lo! the needle is invisible, it is whirling on its pivots fast. The operator talks of the variant length of waves and of a continuous stream, and in some instances it is half a minute, sometimes three minutes, before the needle comes to rest, and it has kept in swift revolution for many hours; but when it pauses it points no longer to the north, but to a particular part of the mechanism. You leave it there, and are busy with other wonders for an hour or so. Returning, you find the needle still points to its new master. You lift the compass off, and at once it resumes its normal position. You slowly lower it towards the silent cylinder, and when within an inch or two it obeys the new impulse again, and points as before. So also it veers from the north when you carry it near the knob of the copper globe. As Gladstone says, 'Our hands can lay hold of truths that our arms cannot embrace,' and though it takes a physicist to comprehend this miracle, any careful observer can apprehend it, and, after seeing it repeated many times, if he is measurably well read, is competent to testify that here is a new, subtle, silent, continuous influence, and that it is called into exercise in connection with certain brief musical sounds.

Snell Manuscript: In November 1884, Keely performed the following experiment, constructed from theory, which he had attempted several times and at last succeeded in carrying to a successful conclusion.

A small globe (composition not given) centered axially on an iron rod (relative position of axis not given) was insulated by two plates of glass which were presumably also centered axially on the iron rod on both ends or poles of the globe. Beneath one axial terminus a circular sheet of metal was placed on the floor, from which piano wires (number, size or tension not given) stretched to and touched one of the plates of glass. The globe rotated when two persons each grasped the iron

axis at its two termini with their respective right hands - one person standing on the circular sheet of metal. Rotation ceased when Keely (who was one of the operators) took hold of the other person's left hand with his right hand (presumably substituting his left hand to grasp the axis.)

Keely stated the reason to be that "The receptive flows became independent of the circular chord of resonation set up mechanically. The power of rotation comes on the positive and power of negation breaks it up."

The revolution of the sphere he stated was caused by the "Receptive concussion of two forces, positive and negative, coming together, seeking their coincidents and producing rotation, not by harmonious streams but by harmonious waves." He stated the introductory settings were entirely different from those of the musical sphere and that sound waves had nothing to do with the motion of this globe.

"Could we equate and hold in equation the relations of mind and matter - the brain and the body - we could live eternally in our bodies there being no depreciation of the physical. But a much higher end is attained for the pure ether is liberated from the crude molecular in our physical organisms, effecting the transmutation of emotional, mental and spiritual forces from crude matter and thereby adding to the finer elements of the universe as well as of our individual souls."

Public Ledger, Philadelphia, April 16, 1896: "Keely had shown him (Professor W. Lasselles Scott) a peculiar apparatus, which he called a 'sympathetic negative transmitter.' It had been taken all to pieces for his benefit and put back together again. Imagine a globe in which is a vibrating disk, which Keely calls a 'cladna;' also, a series of tubes which, under certain circumstances, act like small organ pipes. Professor Scott said he could get from Keely no connected account which satisfied his English sense as to what these were but he found that a sensitive ear or hand could appreciate the responsive vibrations from these pipes and the apparatus appeared to be regulated upon something like a definite order or plan. For instance, he discovered that the sympathetic transmitter was sensitive to what is known as B flat, D natural and F and that it was also apparently sensitive to the notes D, F sharp and A. By questioning Keely he found that he regarded the first three notes and their combinations as having a tendency in one direction, which he called a polar force, and the other three notes a tendency in an opposition direction, which he called a depolar force."

BIBLIOGRAPHY

- (1) C. W. Snell, notations in The Snell Manuscript, Detroit, 1934. Available from Delta Spectrum Research.
- (2) Mrs. Clara Jessup Bloomfield-Moore, Keely's and His Discoveries, London, 1893. Available from Delta Spectrum Research.

A Modern Wizard:

The Keely Motor And Its Inventor

excerpted from
Mysteries and Romances of the World's Greatest Occultists
by Count Louis Hamon (Cheiro)

ONE of the leading scientists of America, Dr. Joseph Leidy, LL.D. of the University of Pennsylvania, surprised the thinking world in 1889 by coming forward publicly as a supporter of the inventor of the famous "Keely Motor."

Dr. Leidy's published statement was:

"Having had the opportunity of seeing Mr. John Keely's experiments, it has appeared to me that he has command of some unknown force of most wonderful mechanical power."
(Signed) JOSEPH LEIDY.

Coming from a scientist of such repute, these words caused a considerable sensation in both financial and scientific quarters.

A further statement from Dr. Leidy appeared in The Inquirer (Philadelphia) as follows:

April 8th, 1890.

"After having had the opportunity of witnessing a series of experiments made by Mr. John Keely, illustrative of a reputed new motor power, it has appeared to me that he has fairly demonstrated the discovery of a force previously unknown to science. I have no theory to account for the phenomena observed, but I believe Mr. Keely to be honest in his attempt to explain them. His demonstrations appear to indicate great mechanical power, which when applied to appropriate machinery, must supersede all ordinary appliances."

(Signed) JOSEPH LEIDY.

Previous to this announcement, for upwards of twenty years a completely unknown man, John Worrell Keely of Philadelphia, had been working patiently and secretly to demonstrate that he had discovered a new force in nature that would eclipse electricity and all other known mechanical forces.

An extremely big order, all must admit. Keely had been working on his idea long before scientists had begun to discuss the probability of "bursting the atom" to release the enormous force contained in it, which experiment has in recent years been partially carried out by scientists in England, Germany and America during 1932-33.

Keely's principal work for years previous to its becoming talked about, had been his efforts to demonstrate, to put it in his own words "that all corpuscles of matter can be subdivided by certain orders of vibration, thus showing up new elements." It was not however, until by what men call "mere chance" that Macvicars' *Sketch of a Philosophy* fell into his hands, together with a work entitled *Harmories of Tones and Colours, Developed by Evolution*, written by a Mrs. F. J. Hughes, a niece of Darwin's, that caused him to turn his attention to the structure of ether and he learned that "the same laws which develop harmonies develop the universe."

This recalls to one's mind that beautiful prophetic verse by Coleridge:

"What if all of animated nature
Be but organic harps diversely formed,
That tremble into thought as o'er them
sweeps,
Plastic and vast, one intellectual breeze.
At once the soul of each and God of all?"

From this moment Keely turned his attention to etheric vibration and the flow of the magnetic current of the earth from pole to pole, with the astonishing result that he so perfected a motor to make use of these forces that between 1889 and 1890 he was in a position to show to scientists, in his laboratory in Philadelphia, a machine that ran by some mysterious power, or to quote the words of Dr. Leidy,

"he demonstrated the discovery of a force previously unknown to science."

One might have imagined that such an extraordinary discovery would have been hailed by scientists and the press as great a revolution as that caused by the steam engine and later by the production of electricity.

The contrary was, however, the case. Nearly all men of science, with a few exceptions, together with the press, ridiculed the idea as impossible, and did not hesitate to call Keely a charlatan and a fraud. Prejudice against the unfortunate inventor ran so high that whatever financial sources he had became dried up, and for some years he was often reduced to the point of starvation.

Whatever help or encouragement he received during this period came from two women, who perhaps in their intuition, foresaw the possibilities of such a discovery long before it could penetrate the more dense minds of men.

One of these ladies, Mrs. Bloomfield Moore of Philadelphia, suffered cruelly for her loyalty and generosity to the inventor. Some of her relations attempted in the Courts to prove her insane. An injunction was obtained against her making use of her property, and she was in the end reduced to almost a state of complete limitation.

A MODERN WIZARD

It was at her house in London that I first heard of the "Keely Motor."

Sitting next me at the luncheon table was the well-known scientific engineer, Major J. Ricarde Seaver, a man well known in London circles who for services rendered in some engineering project had been made a " grandee " of Spain.

The conversation had turned on the prospects of the "Keely Motor," a subject that on account of hostile criticism about the same time in the press was being much discussed.

To the surprise of everyone present, Major Ri-

carde Seaver said:

"I have only heard of John Keely's discoveries in the press. All projectors of new ideas are at first subjected to calumny, criticism and ridicule. James Watts, the inventor of the steam engine, took over thirty years to develop his plans. In the meantime he was often laughed at.

"When the idea was first mooted of running an electric cable to America, it was considered absurd. It is the same with many other inventions that in the end prove of use and benefit to humanity.

"Judging from articles I have read, Mr. Keely has demonstrated to many eminent men his neutralizing or overcoming of the law of gravity and the separation of metallic plates by a new means of employing the Law of Vibration. Such men as Dr. Joseph Leidy of the University of Philadelphia and Dr. James M. Wilcox, the author of *Elemental Philosophy* have testified that they have witnessed Keely's experiments and were satisfied that he has made manifest the existence of some, up to now, unknown power that cannot be explained by ordinary physical laws.

"The opinions of such men cannot be lightly thrown aside. I only wish that the opportunity may some day come my way to be sent to Philadelphia to investigate Keely's discoveries myself."

As Major Seaver had only met Mrs. Bloomfield-Moore for the first time that day, he was later surprised to hear that our hostess had for years been deeply interested in the progress of the " Keely Motor."

Six months later, Major Seaver dropped in to see me in my rooms in New York City.

"Yes," he said, as he held out his hand, "my wish became realized. Barnato Brothers, the firm to which I am advisory engineer, have sent me over to investigate and report on the 'Keely Motor.' I am going to Philadelphia tomorrow and I propose that you come with me. Give yourself a holiday for a few days and come along."

The next day found Major Seaver and myself on the train together.

During the journey I got the Major to tell me something of his plans.

"I have no preconceived ideas about Keely, one way or the other," he said. "I am just going with an open mind commissioned to report to my employers if there is any commercial possibilities in his 'Motor.' Its supposed weak point is, that it can only be set in motion by Keely striking a chord of vibration on a violin, which is the key to unlock a similiar vibration in the machine. If this is really the case, then a man of Keely's attainments may any day invent an instrument to take the place of the violin, and if such a thing should happen, it would be worth while for such a firm as Barnato Brothers to pay many millions of pounds to have an interest in such an epoch-making discovery."

The next morning Major Seaver presented his credentials at Keely's workshop.

The inventor received us without any formality. He was in fact in his shirt-sleeves and did not even make a pretence of putting on his coat. He was a most unassuming man, very simple and direct in his words and expressions.

He had no pretensions of being taken for an engineer or a scientist or anything out of the way.

In answer to one of Major Seaver's questions as to what had first led him to believe that an, up to then, unknown force existed beyond the power of steam and electricity, he very simply said, "The idea came into my mind from where I cannot tell. Perhaps it first came from a craze I had to study the magnet to attempt to solve what the mysterious power was that enabled it to attract steel and iron to itself.

"For a long time I wondered over the indisputable fact that a horseshoe of iron could be magnetized in a few seconds by the current of a few amperes from a battery, and that such a magnet could lift many pounds weight of metal. Further, that every second of time without end while the magnet is expanding energy it totals up an almost inconceivable amount of actual power, not alone that, but the magnet of

one pound lifting power today, may and in fact will be stronger tomorrow.

"Where does this really tremendous amount of energy come from? By what inscrutable process does the mere magnetization of a bar of iron make of it a machine for the transformation of energy, even more, a perpetual creator of force?

"It came into my mind that there was a hidden process going on of some kind, energy going into the magnet and flowing out of it all the time it was doing work energy in some form.

"Where did it come from—gravity? atmosphere? solar rays? earth currents? Who can say?

"The mere fact of the magnet carrying its load proves conclusively the constant flow or positive action of a sympathetic force, the velocity exceeding millions of vibrations per second.

"In the course of many years of experiments, I believe I have discovered a means of harnessing what may be called 'etheric' force and of overcoming gravity.

"I want you, Sir," Keely went on, turning to Major Seaver, "to examine my machines from the standpoint of the sceptic. Calumny has asserted that I have them connected by a hollow steel wire by which I employ compressed air.

"I want you to satisfy yourself especially on this point. You are entitled to lift the motor off the bench, to place it where you like and it will still function.

"The first demonstration I will give you is that of starting the motor by a note of music, otherwise vibration. I want you to do this yourself. You will take this violin, pass the bow across the strings. At first you may not succeed, but you will eventually."

Major Seaver took the violin. He was fully ten feet away from the machine he was supposed to start. For fully five minutes he tried note after note, but nothing happened. He handed the violin over to Keely.

Perhaps it was due to his long years of practice, or it may have been owing to his unusually keen musical hearing, but the fact remained that in one stroke of the bow an immediate response was heard in the machine. The buzz

from it grew louder every second until its speed became so great that, although bolted firmly on the bench, it rocked the whole place.

"Can you stop it?" Seaver asked. For answer Keely drew a discordant note from the violin. The machine immediately began to slow down and finally stopped.

"Now, Major," Keely said, "you should be able to start it up yourself. Be patient, try tone after tone and chord after chord. Sooner or later you must strike the right one."

Major Seaver, with a very patient look on his face, again took the violin. This time he drew longer notes from the instrument. Suddenly an answering buzz was heard in the machine. It started off as before, its speed rapidly increasing every moment.

Again the Major lifted the violin. He drew a sharp discord from the strings. Instantly the motor slowed down and became silent again.

"Remarkable," was all Seaver said. Then, taking up a wrench lying near at hand, he very deliberately undid the bolts and lifted the motor off the bench.

As no connecting wires of any kind were to be seen he rebolted the machine and handing me the violin, told me to try.

Perhaps it was what is called "beginners' luck." I had barely drawn a sharp clear note from the "A" string, when again the motor started.

This time the "stopping" was the difficult part. Though I struck discord after discord, still the motor went on rapidly increasing its velocity. I appealed to Keely to help me. He took the violin, struck one discord and immediately the motor slowed down and stopped as before.

"That is the one weak point that up to now prevents its commercial value," Keely said. "My efforts now are being concentrated to make an instrument that will give off an exact note to start and stop the machine at will. The difficulty is not an easy one to get over owing to the variation in the magnetic and

etheric currents which are changing continually, but I believe that one of these days I will get the inspiration how to solve the problem."

Keely next showed us his revolving globe of glass that had caused much comment in hostile newspapers.

It was of very simple construction, merely a large glass globe balanced on a pivot of platinum that, when spinning, kept its equilibrium by centrifugal action exactly as a boy's top keeps itself in position by the same law.

This globe was also started by a vibration from the violin. When it had attained considerable velocity, Keely made me lift it off the table and carry the whole thing, wooden stand and all, several times round the room. As its revolutions became more and more rapid I grew alarmed, believing it might any moment fly to pieces. Again a discord from the violin and in a few minutes it stopped.

The next day Keely showed Major Seaver and myself another of his inventions equally startling. It was nothing more or less than a means of overcoming the law of gravitation as applied to airships.

Before going into this demonstration the inventor showed us a remarkable experiment in connection with this idea.

Three glass chambers, forty inches in height, filled with water, were placed on a slab of glass. In each of these cylinders were three metal spheres weighing six ounces each. When a wire composed of silver and platina connected these glass chambers with the sympathetic transmitter, the metal spheres rose or descended in them or remained stationary at any point with a motion as gentle as that of a thistledown floating in air.

In demonstrating what appeared to be the overcoming of gravity for aerial navigation, Mr. Keely next showed us a model of an airship weighing about eight pounds. When the differential wire was attached to it, it also rose floated, or remained stationary, at whatever height he wished it to be.

This remarkable demonstration of this model airship, it must be remembered, was shown us at the Keely Laboratories in 1890, some thirteen years before the brothers, Orville and Wilbur Wright, flew the first aeroplane in [Carolina in 1903 and Dumont flew] in France in 1906.

Keely allowed Major Seaver to make, without hindrance or opposition, whatever investigations he wished. The Major in the end freely confessed that he could find no evidence of "hollow wires," compressed air or electric power used in any way in Keely's demonstrations.

As we returned to New York on the train the next day he summed up his meeting With the inventor by saying: "I can only come to the same conclusion as Professor Leidy and Dr. J M Wilcox 'that Keely has command of some unknown force of most wonderful mechanical power.'"

In spite of this, this really great inventor, or as Keely preferred to be called, "discoverer," was no nearer to financial success than before. Major Seaver had to report to his company, Barnato Brothers of London, that until the moment arrived when Keely produced a mechanical device to take the place of his violin there could be no prospect of success of "the Keely Motor," from a commercial point of view.

And so things went on until Mrs. Bloomfield Moore, under opposition from her family, could no longer remain as Keely's backer. Bills and writs for money came pouring in on the inventor's head, the press lost patience, papers denounced "the Keely Motor" as a failure and Keely as "one of the greatest swindlers that ever lived."

Perhaps it is that inventors, like poets, painters and writers, belong to an unusually sensitive class. They can only create by being encouraged in their visions and dreams.

So few realize that "dreams" have been so often the forerunners of reality that it is to "dreamers" that the world owes so much. Poor Keely became literally hounded to death by

the press, under-paid reporters in search of copy made "wonderful revelations," editors in easy chairs wrote sarcastic comments.

"Man's inhumanity to man" crushed one more over-sensitive soul, and so a great discovery became lost, at least for the time being.

Alone, one night in the winter of 1898, after destroying all his papers, the records of over twenty years research, together with his machines, John Worrell Keely put an end to his own life.

* * * * *

Copy of final report of the investigations of W. Lascelles-Scott of the Physical and Chemical Laboratories, Forest Gate, England.

May 1st, 1896.

"From a lengthened personal examination of Mr. Keely's appliances, I am distinctly of the opinion that he has discovered a force hitherto absolutely unknown to science, and that he holds within his grasp a driving power, or means of performing mechanical work, which might be called illimitable."

(Signed) W. Lascelles-Scott.

editor's note: It has not yet been substantiated why or how Keely died. Cheiro's opinion is stated above. Other errors in his report cast doubt on this idea. Other stories attribute Keely's death: by being run over by a street car, pneumonia, shot or pushed under the street car.