## THE ORDER OF THE ESSENES 2527 SUNSET DRIVE TAMPA 6. FLORIDA

DEPARTMENT OF INSTRUCTION

## NO WONDER!

We love you. There is nothing of cant or hypocrisy in this, no false or spacious appearance of virtue or goodness, no feigning to be what we are not, no pretense with ulterior motive, no hypocritical sanctimoniousness.

Every normal person has a natural desire to be helpful to others, and from acting upon that impulse come life's greatest satisfactions.

We are conscious of having been helpful to you; therefore there is incorporated in you something of ourselves, and perhaps there is something of self love in our feelings toward you, and we claim no special virtue by reason of our regard for you.

In death you will find that the sense of loss is greater, when one passes on for whom you have done much, than when one passes on who has done much for you. It is understandable. You seem to lose part of yourself.

Our regard for you, we want to express. The depth of our feeling with respect to you lies not in what we have done for you, but in what you have helped enable us to do.

Philip Wylie, in "Generation of Vipers" sees murderers in widows who have nagged, complained, and made life on earth a hell for husbands, and by mental torture have driven them to an untimely end — in widowers enraptured with self love and self indulgence who have throughout a married life inflicted mental anguish upon sensitive souls, and shortened life's span.

We see in you and all of our students who have seriously studied with us a better side of life - those who are interested in self improvement - those who seek happiness, and know that to have it, they must share it (see Instruction 63) - those who seek health, that they may better serve mankind and are conscious that as they think, so are they -- those who desire more of the material things of life, that they may be better enabled to carry out the heart promptings of helpfulness, and are conscious that fortune attends the purposeful and those who learn and observe the laws by which all are governed.

Our daily mail would make any man happy. To see the far reaching influence of suggestions planted in fertile soil, to see the course of lives changed for the better, to know that there are so many in the world who are climbing upward and have an awareness of individual responsibility, is indeed heartening.

We do not arrogate to ourselves the credit, but with an humble spirit we are grateful to you and those like you who help to make this work possible and to constantly expand -- No wonder we love you.

THE ORDER OF THE ESSENES

Bv

BAHanner

Director



## THE Essenes

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INSTRUCTION 77

Assuring to the acceptable and accepted HEALTH, HAPPINESS AND SUCCESS.

"THE PRESENT ATTITUDE OF REPUTABLE SCIENCE TOWARD THE PRINCIPLE THAT THE MIND CONTROLS ALL BODILY OPERATIONS IS ONE OF POSITIVE CONVICTION. THE WORLD'S FOREMOST THINKERS ACCEPT ITS TRUTH.

THE INTEREST OF ENLIGHTENED MEN AND WOMEN

EVERYWHERE IS DIRECTED TOWARD THE MIND AS

A POWERFUL CURATIVE FORCE AND AS A REGENER
ATIVE INFLUENCE OF HITHERTO UNDREAMED-OF

RESOURCE."

--- Didema.

## TRANSFORMATION OF FORCES ILLUSTRATED

We now come to the point of showing the third class of forces that play upon the brain in the production of what we term mind.

We have shown that the brain is a physical material thing — a living mechanism, and we are now explaining that it is in nature a force center where three distinct classes of forces meet within the cells of the brain.

These three classes of forces have distinct and different kinds of action; each force plays its own part in the functioning of the brain, and producing a different result, but the common result is what we call mind.

The third class of forces we are now to discuss may be called ethereal forces.

It is accepted and proved in many ways that there is a universal omnipresent substance, and the term applied to this by science is the "ether of space." These ethereal forces never stop and their action is constant, and it will be tremendously important to remember when we are discussing just what these ethereal forces do, that they all bend as they enter any new media, and that this ether of space extends everywhere.

The ether of space is one element of the mind and is the fundamental element of mind. Note here the distinction between brain and mind, and that we used the word mind.

The vibrations of the ether of space always keep moving with their accurate vibrations among the electrons and atoms in the cells of the brain, and passing through the electrons in the cells of the brain again co-mingle with the universal ether of space.

If the brain cells and the electrons have been impressed or have a record upon them, then the rays of the ether of space are interfered with as they pass through these impressions and records, and as we have suggested, are bent or diverted.

An understandable illustration of this principle can be worked out in this way. — Take a silhouette and paste it upon a piece of glass, and let the sun's rays shine through it and you will find that a shadow is cast, and you can see it upon a cloth or wall behind the glass upon which the silhouette is pasted.

Another illustration: Etchings upon glass interfere with light rays coming through, and cast a pattern where the light falls.

There can be no question but that every individual is laved, bathed, and has his being in this ether of space, and the brain, as every part of the human body, is penetrated and interpenetrated by the ether of space rays, and it is true that they pass in all directions at the same time, and these rays may be reflected, refracted, focused or absorbed.

INSTRUCTION 77 . . . . . . . . . . . . . . . . . THE ESSENES

We know that all electrons have a whirling motion, and therefore they have a whirling motion in the atoms in the brain, and from descriptions we have given of their action, you know that there are comparatively wide spaces between them, and that ethereal rays pass through all space, no matter how fine.

There is one significant and tremendously important point to remember — the <u>ether of space</u> is the one element of the mind that is common to all minds. It is universal, and therefore it is everywhere. It is common to all minds, and therefore to Universal Mind. And therefore, it must be the agent of the Creator, if it is not the Creator himself.

We again refer to our mention in instructions past of conscious mind, subconscious mind, and universal mind, and we have stressed that it is but three phases of the one mind. We have said that the ether of space is the essential element of mind, and therefore man's unity with universal mind is understandable.

We go back now for a moment and point out that our sense instrumentalities bring to the mind a perception of environmental or outside conditions, and we likewise point out that the organic forces are all inside forces or forces from within, and that the third, or etheric force is constant, uniform, and universal, and acts in conjunction with the sense and organic forces to produce mind.

To lay a foundation for later understanding we will merely mention the fact that the cells of the brain are transparent to the ethereal rays, just as glass is transparent to light, but if on the cells of the brain there is an imprint, an impression or a recording, the rays are bent and interfered with, and they are in the process of transformation into what may be termed mind substance, thoughts, mental expressions, or manifestation.

There can be no question that these three classes of forces do actually reach the brain and act upon it, nor can there be any question but that the mind will not manifest unless these forces are acting, and there can be no other conclusion but that if the forces are varied, the mind is different.

To summarize, we have the outside or environmental forces, which reach the brain by way of the special senses, and we have the inside or organic, which all arise inside of the body, and from the various organs of the body; and we have the ethereal vibrational forces, which all science recognizes and upon which all scientific understanding is based.

All activities are manifestations of forces, and there could be no such thing as a manifestation of force, if there were not something upon which the forces could act, and therefore any so-called science which denies the existence of matter is in error, because without matter the individual would not exist and could never apply forces, nor could he have forces applied to him, and there would

be no living thing, for neither life nor mind could manifest.

We are going to treat in later instructions upon the action and interaction of these forces upon the brain, showing what they do and how they do it, producing consciousness, thought, and all things that we talk about in the mental realm, both normal and abnormal, — and show how so-called psychic phenomena comes about, and how and why and under what conditions there can be telepathy, and give reasonable explanations of certain mistaken beliefs in spirits.

In the meantime we are going to deal with things physical, and implements and instruments and machines with which all are familiar, and show how they operate and produce the results that they do, so that when we explain mind action, you will know that it is not theory, but that there are counterparts in the physical world.

We are now going to explain to you how the sound pictures are made, which you see in your moving picture theatres.

Later in the course of these instructions you will see how this explanation will help you to understand things metaphysical and psychological, and particularly those subjects we have recently been over, and more particularly the subjects to be taken up later.

In making sound pictures what is actually done is to catch the vibrating air waves made by voices, music and other noises, translate them into rays of light, and then register or photograph the light rays on the edge of the moving film and properly synchronize it with the pictures that are being simultaneously registered on the same film.

How are sound waves translated into light waves? The sound wave is a movement of the air itself. Nature has designed our ears in such a way that when sound waves strike them, certain brain currents are caused which give us the consciousness of sound, but we cannot see sound. How then can a sound wave be caught and changed into such form that it can be photographed? — Only light waves can be photographed.

It is cuite simple to understand. You, of course, are familiar with the telephone. When you speak into the transmitter of a telephone you know that the air waves of sound, caused by your voice, make a small, metal diaphragm in the transmitter vibrate back and forth in resonance to the sound. As the diaphragm vibrates back and forth it changes the quantity of electric current which is passing over the circuit which connects the transmitter into which you speak, with the receiver held to the ear of a person, close or far away.

Each time this electric current is made to vary by the air waves of your voice, the current, in turn, moves or vibrates another diaphragm in the receiver, and it thereupon translates the vibrations back into air waves.

The microphone which is used to pick up sounds for radio transmission and also for sound pictures, amounts to little more than a highly sensitized telephone transmitter. The same principle is involved, but in sound pictures these small electric currents generated by the

Page 4 . . . . . THE ESSENES

microphone must be translated into still finer waves of light, instead of immediately back to sound waves.

This is accomplished by connecting the microphone currents with electric light currents in such a way that the intensity of the electric light is varied in accordance with the variations in the microphone currents. Thus you can see that the light will be made bright or dim to correspond, and this is photographed and you have a jagged or saw tooth line as the film passes this focused light.

Another way to catch the variation in the intensity of this microphone current is to have it connected with an apparatus which varies the size of the slot through which a constant light falls upon the recording film. The stronger current would open the slot wide; the weaker current would open it only partially. Silence would close it. Thus the area of a sensitized film which is developed by the light beam comes out a jagged or saw tooth line.

The first method described is known as the variable density method; the last as the variable area method. The latter method seems the more reliable.

Thus the spoken word or music become a series of black and white lines on the edge of a strip of celluloid; the rest of the film is the picture of scenes or acts taken simultaneously.

Often and probably now generally the pictures are taken on one film, and the sound upon another, for more perfect synchronization, and because a number of microphones pick up the sound.

Having transformed sound, such as human voice, into mechanical vibration in the microphone, thence into an electric current varying in intensity, which in turn is transformed into variable light rays — and finally into a jagged line or drawing on a photographic film, we have the problem of translation back into sound waves, to have the "sound picture."

A small photoelectric cell is the device used to perform the first of these steps. A photoelectric cell is a piece of metal fastened inside of a vacuum tube - the material used is selenium, sodium and potassium. They give off electric currents when light of a certain sort is focused upon them. Expressed otherwise -- a photoelectric cell is a device which utilizes the natural properties of certain metals to translate light to electron waves of an electric current. When a beam of light falls upon the photoelectric cell, the cell sets up a minute electric current. These currents are so weak they cannot be used in any practical way without amplification. Therefore, audion tubes similar to those in your radio are put into the circuit - one or more as required.

We now consider how this photoelectric cell is used to translate or transform black and white saw tooth marks on a strip of film into tiny electric currents. The nature of the cells is such that the brighter the light which is thrown upon it, the greater will be the volume of the electric current coming out.

In the moving sound picture projection machine in your theatre is an independent electric light which is so focused that it shines directly

through the sound track of the film onto a photoelectric cell.

When a light area of the sound track passes in front of this light a great deal of light will shine through it onto the photoelectric cell and a comparatively large volume of electric current will flow out of the cell as a result. When a dark bar or saw tooth appears on the sound track, the light will be correspondingly interrupted and the current will be comparatively small. Thus you can understand sound photographs are translated or transformed into electric currents of varying strength. By audion tubes these currents are increased until they are able to activate the vibrating diaphragm of a loud speaker apparatus.

The principle of the loud speaker is quite familiar to all of us since the advent of radio. Precisely the same sort of audion and vacuum tubes as are in your radio are used in amplifying the photoelectric current to move the diaphragms in the loud speakers behind the screen of the moving picture theatres.

In recording sound in "sound pictures" or "talkies" it is a means of converting sound waves into photographic areas on the film. In retranslating these back into sound, the light and dark areas become successions of strong and weak electrical impulses. In other words, they create a change in the quantity or intensity of light that passes through the sound track from an "exciting" lamp placed behind it. The result is that on the beam of light from the projector, light falls in ever varying measure upon a metalloid, such as selenium, which is part of an electrical circuit. Light upon selenium decreases its resistance to an electrical current in direct proportion to the amount of light. Consequently a radio also connected with that electrical circuit receives current as fluctuations similar to those originally produced in the microphone; and these naturally issue from the loud speaker as intelligible sounds.

Selenium is by no means the only material that shows such sensitiveness, and more generally a "photo-electric cell" or "electric eye" is used. These "photo-electric cells" or "electric eyes" are but tubes of electrons. Electrons are like people - sleep in dark - and awake with light. They get busy in light.

In every-day language and just generally speaking (non-technically) ordinary sound recording on records makes minute indentations on the record in a spiral beginning at outer edge of the record running to the center, but in sound pictures the indentations are not mechanical indentations - but are dark and light areas - and they run, not in spirals, but along the edge of the film in a continuous line.

To get a mental picture of what is on the sound track of the film (enlarged), just get a wood saw and hold it straight up and down - and the teeth represent the indentations - transparent and otherwise. It is, in other words, a minutely jagged line running the length of the film.

Film projection requires that each little picture in the series shall be held still while it is shown on the screen, and then the light be cut off and the film moved down to the next picture, the light turned on again and so on. If the film came steadily down from the reel above to the one below, there would be just a blur on the screen.

The sound track or film, on the other hand, must run continuously, and therefore it has its own separate continuous projector.

Of course the intermittent movement of the picture is very rapid - approximately 24 pictures to the second - or about one and one-half feet of film per second, so the human eye does not note the turning off and on of light.

The point is that sound waves are transformed into a photographic film impression, made by light rays or waves. This is then a tangible objective thing. Then this in turn is used in the control of regulation of light waves or light "beams," and by electronic tubes converted back to sound waves, and you hear it through the radio loud speaker.

In our next instruction we are going to describe briefly how photographs are transmitted by radio or telephone, or what is known as the telephote machine, and other instruments, by which one class of forces is transformed into another, and point out some specific findings of science which will be helpful in the understanding of mind.

If our explanation of making sound pictures was too brief or sketchy for understanding, and you are further interested, we believe that you can find in your encyclopedia or in your public library books on the subject which will make it understandable, but in it all and through it all, we want you to understand that one form of energy or force can be converted into some other form of energy or force; thus a man may strike the suspended rim of a locomotive wheel with a sledge hammer, and that physical blow will set up vibrations in that suspended metal, and those vibrations send out waves through the air (sound waves). These sound waves can be picked up by a microphone, transformed into electrical currents, varying in strength and weakness. These can be transferred into light waves of varying strength. These light waves can be photographed, and then these photographs can be transformed into light waves, and these light waves again transformed into electrical currents, and again transformed into mechanical vibrations of a diaphragm in a loud speaker, and that again sets up vibrations in the air and we again have sound waves.

This briefly describes possible transformations of forces and energies.

Sound waves, light waves, etheric waves, cosmic rays, and the known things about them have been discovered and ferreted out by man, and the action of these forces determined with mathematical certainty, and the implements and the instruments used in making transformation of energies and forces have been made by man.

Yet it is true that man has never created any machine, implement or instrument that is even comparable to the intricate human machine, and certain it is that whatever man has created, it has been done by thought, by mind, and when we view it all, we must conclude that there is one mind, the universal mind - God- and that man accomplishes in accordance with his use of the one mind.