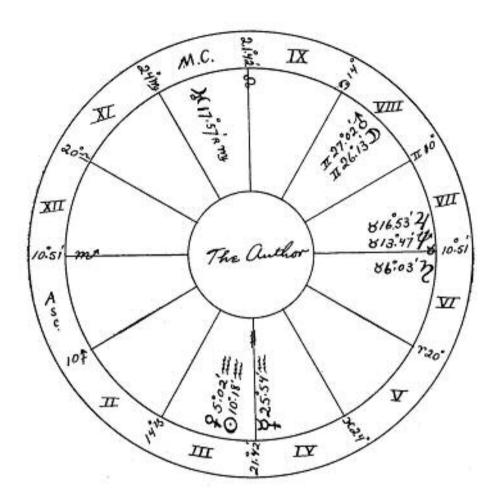
THE STARS

How and Where They Influence

L. Edward Johndro

"Every star in heaven communicates with every other star and with man, by sending out electrical waves. The method of communication is a wireless method. As soon as the waves from the star have reached the eye, they are guided to the brain by a network of nerves . . . It is much simpler to determine how electrical waves pass through space than to understand how their influence is transmitted over the nerves to the central brain, where the message finally is deciphered."

- Michael I. Pupin, N.Y. Times, Feb 19, 1928



PREFACE

As this work was being completed in late January, 1929, the public press began to buzz with Einstein's intimation that the laws of gravitation and magnetism are one.

This view has been entertained by the author for several years and was stated in letters addressed to the national Radio Institute in late 1927 and is reaffirmed here and in Chapter I of this work.

The only reason different fields of science have heretofore viewed gravitation, magnetism, cohesion, and even the personal attraction we call "love", as separate laws, is because they have been looking through different sorts of spectacles-such as the telescope, the unaided eye, the microscope. In other words, they have been led into separate views by the magnitudes with which they dealt.

Einstein's new formula may or may not prove to be the one the scientific world has awaited. It may or may not convince his fellow scientists. Be that as it may it will in no way change the fact that these laws **are** one and the same law manifesting in the macrocosm and microcosm.

February 7th, 1929 San Bernardino, Calif.

The Author

CONTENTS

Page
INTRODUCTION. 1
CHAPTER I
THEORY Steinmetz and Morecroft on he nature of the ether – Tolman, Jeans and Einstein on relativity - Celestial bodies are charged Bodies – Man a charged body – Light waves – Theory of stellar influence on mankind – Radio analogy – Theory of earthquakes – Eclipses and electro magnetics – Earths eddy currents
CHAPTER II
ASTRONOMICAL FUNDAMENTALS Geographic co-ordinates of the stars – The stars radial magnetic Fields – How stars affect cities – Latitude of a stars influence - Ecliptic and right ascensional inductive coupling of planets and stars
CHAPTER III
APPLICATION OF FIXED STARS TO NATIVITIES Short cut for computing star positions – Rules exampled Geographic geocentric conversion table – Difference in effect of zenith and nadir stars – Effect of latitude on horoscopes and destiny – Choosing one's latitude
CHAPTER IV
APPLICATION OF FIXED STARS TO MUNDANE ASTROLOGY Methods of computation – Field couplings of eclipses and stars – Latitude of eclipse influences – Planetary stationaries and magnetic intensities – Compass deflections and irregularities 35

CHAPTER V

VERIFICATION BY NATIVITIES Personal cases – Astor, Stead and the Titanic disaster – Charles, Post – Edward VII and George V - Doyle, Chaplin and Shaw - Truth about "Lucky" and "Evil" stars – Engineering the individual – Choice of location – Key to man's freedom Symbols and aspects
CHAPTER VI
VERIFICATION BY WORLD EVENTS Intersection of world lines – Planetary nodes – Titanic disaster San Francisco, Tokio and Charleston earthquakes – A case of "coincidences" – Declaration of Independence
CHAPTER VII
VARIABLE STARS Varying amplitude of their electromagnetic waves – Range of magnitudes – Effect in cyclic prosperity and depressions – The case of Napoleon – List of variable stars with useful elements and reduction to epoch
CHAPTER VIII
BINARY STARS Rotating electric fields and binary influences – Verification by the Revolutions of 1776 and 1861 – The Boer rebellion – Binary Inductive Couplings in the horoscope of Lincoln, Nicolas II and Victoria – Tables of binary stars and correctives to epoch and latitude
CHAPTER IX
DOUBLE STARS, CLUSTERS, NEBULAE and BRIGHT STARS General nature and effect of doubles, clusters and nebulae – Table of 270 bright stars to 3.5 magnitude – Reference numbers to ancient astrological star lists

CHAPTER X	
GENERAL AND TECHNICAL CONSIDERATIONS Orb allowances and their elimination – Electromagnetic couplings in ecliptic plane – In the planetary filed planes – clarifying examples diagrams – Key to exact mathematical solution of latitude of events.	an
CHAPTER XI	
CONCLUSION Illustrated radio analogy – The 1914 solar eclipse and the Great War Conclusions on relativity, time and consciousness	
diagrams – Key to exact mathematical solution of latitude of events	9

INTRODUCTION

There seems little doubt that the early astrologers considered the planets as the messengers of the stars and that a great deal more thought was then given to the influence of the fixed stars than is commonly done by astrologers today. In fact in modern times the imputations of astrological authorities on this subject have degenerated into the fallacious dictum that only stars near the ecliptic affect individuals, towns, or nations.

To prove the fallacy of this axiom and show **how**, **why** and **where** the stars in any part of the heavens relate to places and nativities, is the purpose of this work.

Whether any comprehensive cataloging of the fixed stars, other than by constellation groupings, was compiled for astrological purposes in early times is not clear; but from mythological references to constellations remote from the ecliptic it seems likely more study was given to their individual natures than was preserved in the records handed down to Ptolemy's time. If the early observers thought well enough of ecliptically remote constellations to study their stars as a group, surely they were not blind to their individual significances.

As the moon and planets circle in planes confined within eight degrees on both sides of the ecliptic, it is natural to suppose that stars within this sixteen-degree belt may have received major study, and that in view of their relatively limited number some of these would be preserved in the astrological records which survived the destructive night of the Dark Age. Indeed, in such listings we find even a few stars of high latitude, such as Sirius, Canopus and Vega, as evidence that the

ancients did not entertain the present popular astrological view that only the stars near the ecliptic should receive astrological consideration.

When, however, we contemplate that in the daughter science, astronomy, no extensive star catalogue was forthcoming from the repeated observations by several generations of astronomers until the appearance of Baily's General Catalogue in 1845, and that not until 1910 did Boss' catalogue appear to correct the grievious errors in Baily's work, it is little wonder no modern progress has been made in astrologically investigating the **entire sphere** of fixed stars in a comprehensive manner.

Determining the influence of fixed stars, even those near the ecliptic, in either nativities or mundane astrology, is admittedly a difficult research as astrological texts would have the investigator approach the problem-by attempt to disclose the nature of each star. Considering that after centuries of observation much still remains to be learned of the "rule" of the seven planets, it is not surprising so little is known of the influence of the several thousand stars of an order ranging to the seventh magnitude.

In this work the approach will be quite different. No at tempt will be made to define the nature of any fixed star, other than as it may come within the variable or binary groups discussed in later chapters of this work. Rather this treatise will rest its case upon a purely mathematical co-ordination in **time** and **place**, and for this purpose we may just as well assume (though erroneously **perhaps?)** what the later examples and hundreds of tests seem to prove; namely, that fixed stars have no individual natures, other than as above qualified, but are **merely centers of radiant energy which, as it were, amplify the tendencies of the planets which configure them.**

Admitting that the theory and examples which follow do not conclusively prove the above limitation to a star's import, still since we have at our command only three methods

-theory, observation and mathematics, the fact that 'or the latter method we assume the **quality** of the event to be due to the **planet** and the **intensity or quantity** to be due to the **star**, will in no way affect the mathematical procedure or ;he purpose of this work to show **how** and **where** stars of **any** declination or latitude may be coordinated with personal or world events in so unmistakable a manner that the star's specific nature, if any, may be investigated.

Whenever we are confused about a result or its cause we may well suspend judgment in favor of combining observation in mathematics, thus localizing the cause for the purpose of study. To cite an analogy: If a patient complains of illness the physician endeavors to locate the discomfort or symptom for the purpose of studying it. He does not assume, a priori, that this or that is the cause, nor predict at once that thus or so will result. He asks: "Where do you feel ill? When did this begin?"

So in the investigation of fixed stars in the manner to be outlined and exampled, we need not and -should not begin with a prejudice or unfounded guess that any certain star has any influence other than amplifying the nature and determining the place of a planetary effect. If we find, as we shall, that a planet and star are coordinated in time and place, we may then easily in most instances decide from the event whether it is consistent with the planet's nature, aspect and elevation, or so 'foreign thereto as to imply the star **modifies** as well as amplifies the issue.

In order to understand and apply the methods explained in 'the following chapters it will be necessary for the student to 'procure a copy of Boss' Preliminary General Catalogue 1. It is also suggested that he make a careful study of The Earth in the Heavens 2 in order to solve longitudinal equations as to place

On first reading, the procedure necessary to utilize the Boss catalogue as the simple fundamental principles dictate may appear tedious and involved, and so it may prove to those whose astronomical background consists solely of familiarity with the equations of **Raphael's Ephemeris** and the approximations in the oblique sphere as given in his and other **Table of Houses**. Unfortunately for such astrological amateurs it is impossible in a brief text to simplify the subject more than has been done, or to undertake for them the labor (recalculation of the Boss catalogue) which would permit them to shirk a modicum of mathematical and astronomical training.

It is hoped, however, they may see in the verifying examples such evidence that the necessary labor is well worth while that a few among them, or among the more advanced, may be encouraged to carry on this branch of astrological research from where the author here lays it down.

There are at least two other ways in which fixed stars are, in a measure, effectual; but to cite them in this work would lead many to confusion and discouragement and far exceed the limits of this small volume. If this treatise creates a demand for their exposition they may perhaps later be condensed into another text.

of events, while applying the present work to latitudinal determinations.

¹ Published by the Carnegie Institute, Washington, D. C.

² By the Author.

CHAPTER I

THEORY

As the average astrological convert or skeptic is greatly at a loss to comprehend how stars and planets can possibly induce personal and world events, it may not be amiss before presenting the mathematical procedure to sketch as briefly and simply as possible how modern physics-which means electro-physics-in the words of its foremost exponents of the present time, is rapidly, and all unconsciously on their part, approaching the very foundations of astrological theory.

Shortly before his death Steinmetz took exception to the popular concept of the ether and stated his conviction that "the so-called ether is nothing more nor less than the sum of all the electromagnetic fields of all the charged bodies in the universe"

Morecroft ¹ states the same thing in showing how electromagnetic waves are propagated in space, how they interact and are reflected. He also states: "At any point in space the actual electric field, in so far as these two charges († and -) are concerned, is obtained by **combining vectorially the two separate radial fields."** Further: "A magnetic field is nothing but a moving electric field ... but if the electric field of the individual electric charges are kept in mind, **and their relative directions and motions considered,** it will be seen -that there is a magnetic field caused by a moving electric field **although there is no resultant electric field there."** (Black type mine.) Just what this last statement means to astrology should be clear to those of

¹ Principles of Radio Communication, pages 5•10, also page 319.

some electrical training, and in the light of the eclipse case given in the conclusion of this work.

Tesla demonstrated years ago that the earth is at a **relatively** constant electrical potential or charge of some seven million volts. It may now be accepted that all material bodies are in a state of relative charge, negative or positive, with respect to each other-man, atoms, earth, planets and stars, and that this manifests as love, cohesion, magnetism or gravitation, or their wholly illusionary opposite (repulse), according as the law manifests in a magnitude series ranging from the microcosm to the macrocosm.

To say that all bodies are necessarily in a relative state of charge may to some appear as an overstatement, and so it may be, **measurably** speaking, when two bodies are either in contact or, being separated, are moving in the same plane at the same or low relative velocities; a condition which exists to but a limited degree or for the greater part only temporarily-as between man and earth, for instance, but not as between man and planets, or earth and planets or stars. When, however, bodies are separated by any medium which acts as a dielectric at their natural oscillatory frequencies and are moving at high relative velocities and in different planes, then it seems to the author a conclusion imposed by relativity that a state of charge or tension must invariably exist between them, and that separate electromagnetic fields must surround them, intersect and interact.

If, however, as a conclusion from the relativity theory, we are to abandon the notion of "action at a distance", as entertained by Newton, we can still say that the planets are charged bodies because subjected to the electromagnetic light waves. And of man we can say the same. In this case we are not astrologically concerned with action at a distance as between the fields separately surrounding the various cosmic bodies, but rather in that case we are concerned with the interaction

in and about the earth of the separate field planes set up in it, and in mankind, by the direct light of the. sun and stars and by the reflected light of the planets. We have an artificial analogy of this in the heterodyning of the waves of widely separated radio transmitters.

Tolman, in **The Theory of the Relativity of Motion**, chap. VI, is disposed to retain the law of conservation of mass, but Steinmetz, **Theory of Relativity**, page 8, discards this law. They agree that if this law is rejected mass must not only vary with the velocity of the body-a condition imposed by relativity-but also that mass must have a different value for different directions. Thus by the theory of relativity the general expression of the mass of a moving particle is given by Tolman as

$$m = \frac{mo}{\sqrt{1 - \frac{u^2}{c^2}}}$$

and for the longitudinal mass of a particle; that is, in the axis of its motion

$$\mathbf{m} = \frac{\mathbf{mo}}{\left(1 - \frac{\mathbf{u^2}}{\mathbf{c^2}}\right)^{\frac{3}{2}}}$$

Relative to this, Tolman points out that "these values are 'those of the electric force necessary to give a charged particle ,unit acceleration respectively at right angles and in the same direction as its original velocity, and hence such expressions ~would appear proper for the mass of a moving particle if we -should define force as mass times acceleration."

From whence, taking the Einstein view that gravitation and 4 magnetism are one law (the law of inertia applied to an accelerative system), we must conclude that the electric charge existing between cosmic bodies in free space is a function of their `relative velocities, just as the mutual induction of their surrounding

fields is a function of their relative directions or planes of motion.

But quite aside from either view we cannot escape the fact that the earth is a charged body at a potential of millions of volts, nor can we easily escape the conclusion that the other planets are in a state of high charge. While that man is a charged body, with an accompanying electromagnetic field, is easily demonstrated by countless experiments, not the least of which is his body capacity on vacuum tube circuits, and his universal emotional experiences.

Since every charged body is accompanied by an electromagnetic field that extends, though in diminishing strength (inversely as the square of the distance), to infinity, however **small** the "action at a distance" may be-and telepathy has demonstrated, and will further demonstrate, it is not inconsiderable as regards earth distances-it follows that the mutual angular relations of man, earth, planets, sun and stars in space define the phase angles of the mutual coupling of their superimposed electric fields. Thus spherical geometry, as applied to astronomy or astrology, becomes merely the measure of these field couplings, and so it is seen the "inducement" of the planets and stars is nothing else than the electromagnetic inductions set up by their intersecting fields, with respect to the earth's and man's fields, as they move in space with various relative velocities in different planes.

With these facts in mind consider the recent statement of Professor jeans that Einstein believes "the essential background to the picture of the universe is not the varying agitation of a sea of ether in a three-dimensional space, but a tangle of world lines in a four-dimensional space. An intersection at a point in the continuum represents an event, while the part of a world line which is free from intersections represents the mere uneventful existence of a particle or a pulse of light ¹. Since our

¹ Why not also of a man, a city.

whole knowledge of the universe is made up of events, it comes about that the tangle of world lines may be distorted and bent to any degree we please; so long as the order of the intersections is not altered, it will still represent the same universe." The boldface type is mine.

We venture to say this is all pure astrological theory did these learned authorities but realize it. For at no time within record has astrology rested its claim to attention upon else. than such mutual planetary angles as define the electric axes (angles) of various crystals; and upon such points of intersective reference as the equinox, the lunar and planetary nodes, the intersection of the meridian and the ecliptic, the horizon and ecliptic, etc. And it is precisely because these points of intersection of our "world lines" do change (due to precession, orbital and diurnal revolutions), and because the inductive couplings between the charged celestial bodies do change, and because man by geographic change alters the coupling of his personal field with that of the planets and stars, that there comes about all the changes we designate as events.

In the chapters to follow all that will be done will be to show, in as simple a way as possible, one small though important cross-section of the electromagnetic linkage of planets and stars as related to current events and to mankind.

The better understanding of high-frequency electrical phenomena which radio research has brought about leaves nothing for astrology as a truth to overthrow save the prejudice of astronomers and physicists who have not yet caught up with the trend in electro-physics. To the public, radio and astrology are equally great mysteries. To the informed they both sift down to the same absurdly simple electro-dynamic principles, and these anyone might grasp would he but dispel the wonder his own mind introduces into them.

Here is how:

Accept the fact that suns and stars (not planets) are radio-active

and that they emit electromagnetic waves which, because of their exceedingly high frequency, we term light ¹; accept the fact that the sun and stars, the planets, the earth, and man upon the earth, are charged bodies, and that all their accompanying electromagnetic fields intersect and interact; accept the fact that the planets reflect light waves and that they each have a different natural frequency of oscillatory response ² to the solar and stellar light waves which constantly bombard them (consequently their reflected light is variously tinted), arid that the phase angles of their field couplings, as their relative movements in space change them, **changes the power factor at these frequencies**; accept also the fact that these planetary frequencies, being of a far lower order than those of the sun and stars-a mere octave of lower harmonics, since they emit no light of their own, are within the range of man's sensibilities to subconsciously detect and respond to ³. The rest is simple. The radio analogy follows:

The fixed stars' and Sun's light-frequency waves may be viewed as analogous, though of much higher frequency, to the carrier wave of a radio transmitting set. Relatively, the planetary frequencies may be likened to the audio frequencies micro phonically imposed upon the carrier wave for transmission purposes. When a planet comes to conjunction with a star, in either plane of the earth's movements (ecliptic or right ascension), it intersects the star's radial field, and its "plan it" (psychologic) frequency is imposed upon the star's light-frequency wave. In this way the message or inducement (static and magnetic induction) of the planet is conveyed to earth and to man over the intervening space, which otherwise would be

¹ Maxwell and Hertz first demonstrated that electromagnetic and light waves are identical. The frequency of light waves are of the order of 600 millions of millions of cycles per second.

² As have all quartz crystals **of differing mass and diameters** -See researches of Cady, Pierce, Taylor and others.

³ "All sense perceptions are exclusively energy effects"-Steinmetz's **Relativity and Space,"** page 23.

but weakly bridged at the planet's own low frequency ¹. You may liken the star's light waves to Paul Revere's horse, and the planets' frequencies you may liken to Paul himself. Without the horse (star and Sun) he could not have conveyed his message **far**; without the man (planet) the horse (star) is **dumb.**

Consequently, the importance of the **fixed stars** in astrology is this: If one's planets configure large magnitude stars he will make himself heard **afar**. If they configure smaller stars his range will be less, and his influence may indeed fall to a level of mere local distinction or even to that of a nonentity.

Consider now if a planet be conjunction with a **variable** star. It is analogous to the micro-phonic frequency beating with a carrier wave **whose power factor fluctuates**; since if a radio transmitting station decreases its power (or the star dims) the voltage amplitude of its carrier wave is diminished, and though the audio (planetary) frequency be superimposed upon it as strong as before (planet remains conjunction with the star in nativity) the signal level will be lowered and the message (of the planet) will not carry as far or come in as strong as before. It may even fall below the level of the man's sensibilities to "detect" at all, and there will be little or no human response and the world will no longer "dance to his tune."

The converse is of course true of a variable star when its magnitude is increasing. Review this when studying the case of Napoleon cited in Chapter VII.

But what about such phenomenon as earthquake, to which man can be neither a remote nor proximate cause as an agent of the Invisible Power?

It has long been an astrological axiom that a large number of the most severe earthquakes closely precede or follow eclipses

and the application of this work and **The Earth in the Heavens** will prove to any open-minded investigator that eclipses can be used in computing the location of the shocks, even when they occur months before or after an eclipse. But as to why this should be so no logical theory has heretofore been advanced.

If, however, we accept the fact that all celestial bodies are electrically charged bodies (if only, as regards the planets, because they are never free from the bombardment of the light waves); that light waves are electromagnetic; that the solar waves continually directly bombard half the earth, and that they are also reflected to the earth by the Moon and planets, and that these waves constantly interact with the earth's electromagnetic field and set up varying eddy currents in the earth as the inductive couplings of the earth, Sun and planets change their mutual angular relations in space; then to understand the cause of earthquakes we need not look beyond the universally accepted electrical facts.

For if the earth's field flux varies and its high-frequency eddy currents vary, a varying earth temperature must inevitably result. Irregularity of compass deflection and dip in terms of hours, days and weeks is one evidence of such a change in the earth's electrical potential and currents. But if the earth's temperature changes the merest fraction of a degree in whole or in any extensive area of its crust, it must expand and contract. If these changes are too rapid, or too definitely localized, tremors must result or, in extremes, fissures appear.

Moreover, because of the great masses of silicon and quartz in the earth's crust it must be viewed as possessing, if not in its entirety at least in many parts, the same piezoelectric properties as small quartz, tourmaline and other crystals. When a potential of a few thousand volts is impressed upon such crystals, even at radio frequencies, they expand and contract (oscillate) due to the eddy currents and the resultant temperature

¹ Perhaps even the general reader is aware that the audio frequencies of a broadcast program could not be transmitted over a few miles-the low note frequencies not beyond a few city blocks--if they were not mixed with a **high-frequency** ",carrier" wave before they are radiated into space.

14

changes set up in them in rhythm with the electrical frequency impressed upon them. The fundamental frequency at which a crystal will oscillate depends upon its kind and upon its mass and diameter 1. It will also oscillate at frequencies which are harmonics of its fundamental frequency. But if impressed with too high a voltage it will oscillate too violently, heat and crack

We can confidently assume the earth will do likewise, abounding as it does with large areas of quartz and similar piezoelectric deposits, particularly in its mountainous regions in or near which earthquakes are the most common. And so earthquakes involve the same electro-physical laws as do better understood phenomena, though in their case these laws are operative at much higher voltages and higher (light) frequencies, and in tremendously large crystalline areas in the earth. The layman may simplify this and say that the sunlight heats the mountain and the heat brings the earthquake, and suppose that no electrical phenomena is involved. He should understand, however, that there is no evidence of heat In fact the temperature of interstellar space disproves in a light wave. this naive notion that light possesses heat. All light as such (as an electromagnetic wave) is "cold light," though even science ignores this fact when it marvels over the light of the glowbug and certain fishes. When a light wave is intercepted by a material body (including gases) oscillating eddy currents are electro-magnetically induced in that body, and heat arises from the electrical resistance of the body to the flow of these currents through it.

At the time of a solar eclipse the Sun's waves, in so far as their earthward propagation is concerned, are intercepted by the moon along a de-finite path defined by the shadow. At the time of a lunar eclipse their reflection to earth is cut off by

the intervening earth. And so in both cases there is a localized interruption in the earth's normal rhythmic oscillations and eddy currents as induced by the solar waves. There is a voltage drop in the alternating eddy currents in that portion of the earth's crust lying within the path of the shadow, in the case of a solar eclipse, and in that portion of the earth lying beneath the moon at the time of its eclipse. The result it what science as yet may term an "insignificant" drop in the earth's surface temperature within such areas, and an uneven shrinkage of the crust. Tremors result.

As crystals oscillate and crack in the plane of one of their several electrical axes, known as lines of cleavage, so earthquakes occur along similar axes, some of which become known as extensive geologic faults, along which earthquakes are the most frequent and generally the most severe. But they may also occasionally occur along other electrical axes which theretofore have shown no geologic faults. Thus shocks now and then occur in locations which have no definite earthquake record. These are along meridional or oblique (horizontal) lines which form electrical axes (astrologically termed "aspects") with the eclipse and with the places of ponderous planets thereat, or likewise configure the conjunctions, oppositions, squares, etc., between the large planets.

Longitudinally these axes are determinable from the Greenwich-celestial coordinate given in The Earth in the Heavens; referring particularly to the meridians which aspect Uranus' place at eclipses and when stationary, and to those eclipses which configure Uranus. It is an astrological axiom that both Uranus and Neptune upset the settled order (Saturn) in all things and disturb the "balance of power" (Jupiter), no less in causing earthquakes than in stirring up revolutions or heralding a new social order.

Latitudinally the declinations of the fixed stars which directly couple with Uranus and Neptune when stationary, badly afflicted

¹ The natural frequency of a planet likewise depends on its elements, its mass and diameter.

15

or at eclipses, become the principal indicators of the shock centers. Much practice and patience and numerous calculations are necessary to sift "the tangle of world lines" in each case, because no conclusion should be drawn from one eclipse alone unless the configurations are particularly striking.

When relatively low voltages at radio frequencies suffice to break down a quartz crystal under certain conditions of fluctuating potential and temperature, it is not a cause for wonder that the Sun's high frequencies, radiated at a potential of doubtless billions of volts, attenuated though these light waves are when reaching the earth, yet still capable of impressing it with some seven millions of volts, should suffice to violently shake and even crack a crystal the size of the earth, or as large s some of its crystalline deposits underlying large surface areas, when a sudden change in the oscillating rhythm is brought bout by the wave (light) cut off phenomenon known as an eclipse.

As to how an eclipse can relate to an earthquake occurring months before or after the eclipse, let the reader ask himself hat would become of his "before" and "after" notions if he were to view all terrestrial phenomena from the Sun and stars, from whence come the waves ¹. If he insists that the time in terval would still exist even though he lost his dogmatism bout its sequence, we can well ask: What of it? Does a quartz crystal in a broadcast transmitter crack the **moment a change** of voltage is impressed upon it? As a rule it does not, no more than a bridge will necessarily collapse from the vibration of a ingle regiment or battalion marching in step across it. But let here follow one battalion after another, even at appreciable intervals, and there will be reached a degree of vibration too violent for the structure to withstand.

As long as the intervals are not sufficient for the bridge, the crystal or the earth to settle down from one series of vibration

before another series is impressed upon it, the effect is cumulative. Though one battalion has long passed over the bridge, one unruly voltage surge from the broadcast station alternator or tube generator has been corrected, or one eclipse has passed by weeks or months, still it may add itself to a more proximate like cause and so contribute its measure to the culminative effect.

This is the reason for computing all the eclipses for a year or more, and for calculating the terrestrial latitudes and longitudes where their **joint** effects are indicated. Some of the later examples will demonstrate this point, as will any of them if the reader will take the trouble to compute those eclipses which for the sake of brevity and simplicity will be omitted in some of the cases.

Though undoubtedly the greatest changes in the earth's field force and in the earth's eddy currents take place within the path of the eclipse's shadow, it must not he thought eclipses have no connection with events in other parts of the world. The later examples will show how eclipses relate to events all over the world. Why eclipses are effective in inducing events far outside the paths of their shadows, may be easily understood by anyone with a little electrical training if he will remember, as Steinmetz has pointed out ¹, **that conditions existing anywhere in an electromagnetic field greatly affect and modify the action in any other part of the same field.** Thus any change in the earth's field force in one longitude affects the field's action on any body (man or city, for instance) subjected to that field in another longitude; notably so at points which form electrical axes (astrologically termed "aspects") with the point of wave damping (eclipse shadow) and with the planets, since the planets' longitudes at the time of an eclipse determine the point of disturbance in the earth's field.

¹ See Chapter XI of this text.

¹ Steinmetz's Relativity and Space, page 19

CHAPTER II

because the planet's reflected wave is imposed on the earth's field at a point determined by the planet's vector.

If the student will study the ionization of gases, the electronic conduction and resistance characteristics of vacuum tubes, and the effects of surrounding them or heated metals with an electromagnetic field, he will get a glimpse as to how and why the changing couplings of the magnetic fields interact with *meteorologic* results. For practical purposes, however, it is not necessary to elaborate on the theory. The effects of the various planetary frequencies upon the weather is well covered in several of the standard astrological texts. The author endorses their claims that the Sun, Mars and Jupiter raise the temperature; Saturn, Uranus and Neptune lower it; Neptune and Venus bring the mists and rains, the former floods, their union downpours, in winter snow; Uranus cyclones and seasonal hail or sleet; Mercury mild breezes (except when coupled with Uranus, when it adds to the gale), and so on.

ASTRONOMICAL FUNDAMENTALS

To easily follow the discussion and examples one simple fundamental must be kept in mind, to-wit:

Astronomical star catalogues list the stars' positions by **right ascension** and **declination**. The **terrestrial** co-ordinates of these planes of measurement are respectively **geographic longitude** and **geocentric latitude**.

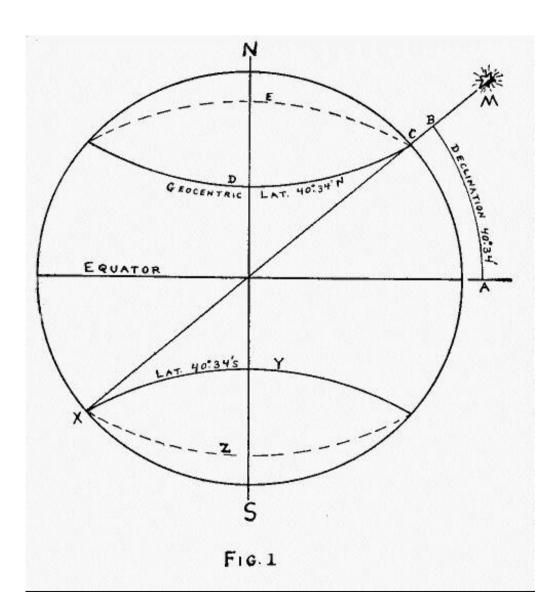
Relative to the co-ordination of terrestrial longitude and celestial right ascension, and particularly as pertaining to mundane astrology, the student is referred to the author's companion work, **The Earth in the Heavens**, wherein it is pointed out that the Greenwich meridian for **1930 falls in R. A. 29°10"** (1.19'Ta); so no further discussion on that point is necessary here, as rules are therein given for relating planetary influences to geographic **longitudes**.

What it is intended to show in the present work is how eclipses, new moons, transits, or planetary positions in nativities, are focused in **latitude** by the fixed stars.

To make this clear let us refer to Figures 1 and 2.

In Fig. 1, M is a star (Algol) in north declination 40°34", AB. Then BX is its latitudinal prime vertical, cutting the earth in north geocentric latitude C and in south latitude X.

Now it must be plain that due to diurnal revolution of the earth all places in **geocentric** latitude 40° 34' north, lying in the circle DCE, will daily successively at C have Algol on their zeniths, **latitudinally** as well as meridionally. Likewise all places in the corresponding south geocentric latitude, XYZ, will, at



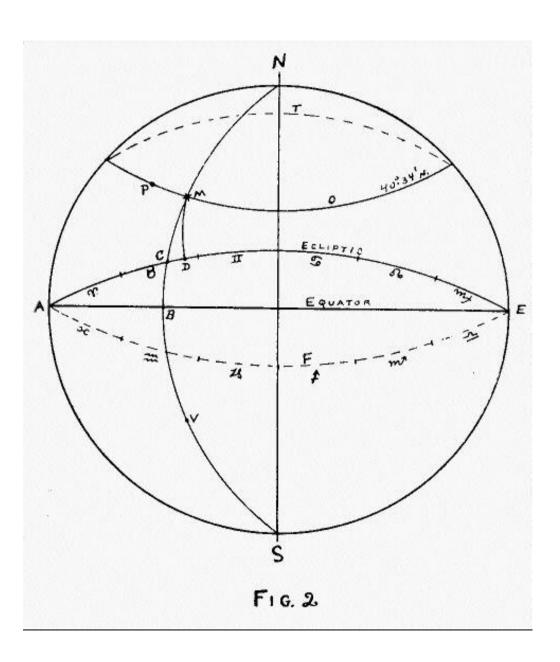
successive hours of the day, at X, have Algol at their geodetic nadirs, C.

In other words, the radial field of the star's electromagnetic light waves threads the earth along CX and is intersected by all places in these latitudes as they rotate to C and X in the "daily rounds' of their affairs.

Consequently, places in this latitude, whether north or south of the equator, are particularly susceptible to the influences of Algol or to planets when conjunction therewith. As example: New York lies in geographic latitude 40°45', or geocentric latitude 40°33', and so it follows that Algol is one of several fixed stars which "rule" New York at this epoch.

The next fundamental to be clarified is how and when an eclipse, transit, or direction in nativity, "excites" Algol or any other star to express its amplifying influence on New York or in the particular star's **latitudinal** belt on earth.

Refer to Figure 2. ABE is the equator and right ascensional plane, and ACDEF represents the ecliptic plane brought down to earth, half the signs north and the other half south as shown. Referring to the Boss catalogue, page 30, star No. 708, we find the position of β Persei (Algol) for 1900 to be in right ascension 3h O1'39".58 and in declination +40°34'13" (+ means north). Converting the star's right ascension (hereinafter often designated by R. A.) from time to degrees by multiplying by 15, we obtain R. A. 45°25'. We may then plot the star's position at M, AB being its right ascensional distance east of the equinox A, and BM its declination north of the equator. BM is also the star's terrestrial geocentric latitude, from which we find, as per Table I, that its geographic latitude is 40°45"56", and all places therein upon the circle PMOT rotate daily under the star; that is to say, "across" its electromagnetic wave (light) plane or radial



field ¹, as illustrated by C, Figure 1, and M, Figure 2. DM is the star's **celestial** latitude.

C, Fig. 2, is the ecliptic longitude of the star's **terrestrial** meridian, and may be found from a Right Ascension Table, sine latitude, such as is given in Pearce's, Zadkiel's or Chaney's texts; to-wit:

R. A. 45°2S"=17°53" Ta, or by the formula

(1) Long. cot. = cot. R. A. + cosine ω where ω is, of course, the obliquity of ecliptic ².

The point D is the ecliptic longitude of the star's **celestial** meridian; that is, its celestial longitude. It may be found by the usual formula ³, or with far less labor as follows:

(2) 45° 25' R. A. of Algol in 1900. +90 00

+ 90° 00

135° 25' O. A. (oblique ascension), which in declination (or geocentric latitude) 40°.34' gives

24° 46' Le

-90° 00'

24° 46' Ta Longitude Algol for 1900

Now let P, Figure 2, be some place, as New York, in geocentric latitude 40°34' north, and let us assume that the Sun is transiting the point C, 17°53' Ta or that a planet having celestial latitude is transiting across the

17°53' Ta, or that a planet having celestial latitude is transiting across the right ascensional meridian of the star, SBCN, near to C. Then the Sun or planet

¹See Morecroft's Principles of Radio Communication, and other treatise on electro-dynamics.

²Use this formula when working from Aries or Libra. From Cancer or Capricorn use the tangent in lieu of the cotangent.

³Chaney's Primer, pages 211-212, or Pearce's text, pages 260-261.

will form a mundo ¹ conjunction with Algol, M, and will "influence" New York, P, or any other place in the same latitude, as P rotates under M, or by virtue of M being vertically in the path of the city's "daily rounds" along PMOT. That is, by the city's diurnal intersection of the star's radial electric field.

Again, assume the Sun or planet to be transiting D, 24°46' Ta, it will be **zodiacal** (oblique-from an R.A. point of view) conjunction with Algol, and again influence New York or places in the same latitude, **either north or south**, by conjunction or opposition, as C and X, Figure 1.

Transits over **both** C and D, Figure 2, must be considered, since in the one case the conjunction is **right ascensional** and in he other case **zodiacal**. To cite the principle in terms of an electro-mechanical analogy, the dynamo, we may say the CM transference is by armature (terrestrial meridian) conductance cross the plane of armature (earth) rotation, and the DM lane is the plane in the earth threaded by the **magnetic** field f the star and the transit as the earth moves along its orbit in he plane of the ecliptic ².

It is far beyond the scope of this brief work to dwell at length on the interpretative phase of the subject, the main object being to present the basic principles and their working formulae in so far as the average astrological student's needs seem to warrant. It must therefore here suffice to point out that conjunctions in or "across" the ecliptic, as D, are truly 'epileptic"; that is to say, they affect persons and towns through the automatism within themselves by way of inclinations and disinclinations—the psychological inducements (electro-magnetic inductions) of the individual or of a town's people; heir attractions and repulsions. This is solely because the

plane DM relates to the intensity of the field force, the density of the lines of force, or the inductive strength of the "pole piece" or magnet. In contrast, the conjunctions by right ascension, as C, produce their effects by a movement in the world by right motion or "righteousness" (regardless of inclinations or disinclination's), or by the objective (commutative) flow of "current events". They may be said to be dynamic-they deliver the current. Whereas the zodiacal conjunctions are static - they supply or determine the voltage.

As a single clarifying example we have the great star Vega circling over Washington, D. G. Wilson's Sun was **mundo** or R. A. conjunction with it: thus relating his administration to the **World** War. George Washington's Moon was **zodiacal** conjunction with it, and the war of his administration was confined within his country and arose out of the colony's "inclination" to freedom. Scores of like examples come to mind did space admit of their citation. The believer may waste his time in awe; the skeptic may waste his time in pointless scoffing; but both are here invited to donate a score of years to intensive research and to abide the evidence wherever it may lead them from where the author here after a score of years rests the question.

Now if all the stars circling in a given latitude, **both north and south** (C and X, Fig. 1), be computed, and their C and D, Fig. 2 points in zodiac be determined, one has a complete list of sensitive (static and dynamic) points whereat planetary transits and eclipses induce events in that latitude, both north and south as explained in connection with Fig. 1.

Here it must be emphasized that the influence of north latitude stars on equivalent south latitude places, or vice versa, must not be neglected. Indeed, the rule is that C (Fig. 1) configurations affect the government, reputation, business, up-building or uplift of the place, whereas X (Fig. 1) configur

¹ The term "mundo" in this work means R. A. conjunctions.

³ See Fig. 6, Chapter XI

¹ See also Chapter XI

ations more often affect property, or induce business depressions, or bring about loss, destruction and underworld events or influences. There is nothing occult or mysterious about this distinction except perhaps that which to some minds attaches itself to contemplation of the law of gravitation. Referring back to Fig. 1 it will at once be seen that the "pull" of the star on C, the north point or zenith in this case, is upward; on the equivalent southern latitude at X it is downward or leveling; that is, toward the underworld. This latter of course would not be adverse. if it were a matter of sinking an oil well or mining shaft; but with respect to affairs that normally should be in the open and "above. board", a south latitude star is mostly detrimental to a northern latitude place, and vice versa. ¹

As a single citation, if we compute a list of all the stars to the 7th magnitude which at the present epoch daily form C and X, Fig. 1, configurations with Chicago, we find the X number far exceed the C number. Consequently, the influence or "pull" of its underworld element on its civic and political life is exceptionally marked. Astrologers who as this is being written ² watch the drive to improve Chicago conditions, would on these principles note that Jupiter, the "Greater Good", is "righteously" (by R. A.) conjunction with stars No. 468 and No. 469, and that these daily pass the latitudinal **zenith**, or C Fig. 1 point, of Chicago during the present generation's epoch on the precessional dial.

It is not to be understood the few citations contained within this treatise are offered as proof in themselves, but merely to point out how the reader may go about the accumulation of proof to any extent his skepticism may require. The chronic indolence of the individual who, himself accomplishing noth-

ing, sits back with a "show-me" air, no longer impresses his opinion on anyone.

Failure to observe these fundamental principles will lead to confusion in weighing the evidence, and will greatly limit the thoroughness of the student's analytic and predictive art.

Throughout this brief outline of principles it is also to be clearly kept in mind that, owing to "proper motions" and precession, the right ascension, longitudes and declinations of the stars undergo slow change, and these annual changes must be considered and applied algebraically to the positions of the stars in the Boss catalogue for 1900 to obtain their positions both as to longitude and latitude for other epochs. These corrective values are given in the Boss work and no trouble should be experienced in applying them if the reader has but a little astronomical background and will carefully peruse the catalogue's instructions. If, however, he has difficulty with the catalogue he will not go very far wrong by adding 50" of longitude to C and D positions for 1900 for each year after 1900; subtracting for earlier periods. But the error for stars of high declination or of large proper motion will by this rule be appreciable, so this short cut is to be discouraged. It is practically imperative that the corrections in declinations be made from the column of annual change in declination given against the star in the catalogue, since the rate of change in this value depends on the star's relation to the equinox or solstice, and therefore their annual changes vary from zero to 20" per year, some plus and some minus.

To understand the annual changes of the stars it is suggested the novice refer to Newcomb and Holden's **Astronomy**, Chapter VIII, Section 5, and to Chapter VI, Part III. If he does not already understand the relation of geographic and geocentric latitudes, let him turn to page 202 of the same reference.

¹ See also Chapter XI

² Early 1929.

It is particularly to be observed that the changes in the declinations of the stars, due to the precessional movement of the earth's poles, mean the same stars do not "forever" circle over the same cities. Vega, now in the latitude of Washington and one among the several foremost significators of the Federal Government at **this** epoch, was once the pole-star. It is this latitudinal shifting of the stars, as much as their longitudinal precession, that determines the rise and decline of cities during the 8,174 (approximately) years which make up a geographic cycle of the signs, and during the 25,800 year sidereal cycle of the stars. ¹

Before proceeding to the methods of computation and the citation of verifying examples, the reader is again reminded to convert the **geographic** latitude of the place to **geocentric** to conform to the geocentric declination of the star as per catalogue; or, if he prefers, convert the geocentric declination of he star to geographic and co-ordinate with the geographic latitude of the place. For either procedure a conversion table is given on the next page. It applies to either latitude or declination, these being respectively terrestrial and celestial terms for he same equatorial distances north or south ². The table is self-explanatory.

TABLE I

GEOGRAPHIC-GEOCENTRIC CONVERSION TABLE

Lat.	,	+	Lat.	Lat.	,	+	Lat.	REMARKS
0	0	00	90	23	8	25	67	The columns marked +
1	0	25	89	24	8	42	66	give the difference between
2	0	50	88	25	8	58	65	geographic and geocentric
3	1	14	87	26	9	14		values for the corresponding
4	1	38	86	27	9	29	63	latitude. If the table is con-
5	2	02	85 ई	28	9	43	62	sulted with geographic lati-
6	2	26	84 5	29	9	56	61	tude subtract the value in corresponding + column to
7	2	50	83	30	10	09	60	obtain geocentric latitude.
8	3	13	823	31	10	21	59	•
9	3	37	81.	32	10	32	58	If the table is consulted
10	4	00	80	33	10	42	57	with geocentric latitude add
11	4	22	79	34	10	52	56	
12	4	45	78	35	11	01	55	tain geographic value.
13	5	07	77	36	11	09	54	It will be noted the diff.
14	5	29	76	37	11	16	53	is maximum at 45°N or S,
15	5	50	75€	38	11	23	52	and above that latitude the
16	6	11	74	39	11	28	51	diff. decreases at the same
17	6	32	73	40	11	33	50	rate.
18	6	53	72	41	11	37	49	Thus for 10° and 80° the
19	7	12	71	42	11	40	48	conversion value is 4'00".
20	7	31	70	43	11	42	47	For 30° and 60° it is 10'09".
21	7	50	69	44	11	43	46	
22	8	Q8	68	45	11	44	45	

¹ See The Earth in the Heavens for distinction between these two cycles.

² Do not confuse this with celestial latitude, which is measured perpendicularly from the ecliptic.

CHAPTER III

APPLICATION OF FIXED STARS TO NATIVITIES

First: Calculate the mundo conjunctions between planets and stars.

These will be **the same for any latitude**, as may be seen by referring to Figure 2. For example: If the Sun or a planet in nativity is at C, 17° 53' Ta, with R. A. AB, any star in the same R. A. **anywhere** along the meridian SBCMN will be undo or right ascensional conjunction with the Sun, regardless of the declination or geocentric latitude of the star, as at M, B or V, for instance.

To find the stars and latitudes so configuring the planets Proceed as follows:

Find the right ascensions of the Sun and planets in the horoscope from their longitudes and latitudes equated from the usual astrological ephemeris. Any R. A. (with latitude) table such as in many of the standard astrological texts will serve. Next change these right ascensions from degrees to time by dividing each of them by 15 ¹.

Look up these right ascensions, as converted to time, in the Boss catalogue and note down the declinations of all stars, **whether north or south,** having the **same** or **nearly** the same . A. as any of the planets, Sun or Moon. Such stars will be n **mundo** conjunction with the respective planets, and the tars' declinations, corrected to the birth year as per catalogue, ill show the **geocentric** latitudes on earth in which each

¹ All this is unnecessary if you have a **Nautical Almanac** or **Governmental Ephemeris** for the birth year, in lieu of such reference as **Raphael's Ephemeris**.

planet is particularly accentuated by the stars for good or ill according to the planet's elevation and the aspects of the planet to other planets, Sun or Moon.

It is hardly necessary to state that the progressed horoscope may be checked up in the same way for any given period of life, if desired. And of course the stars' longitudes and right ascensions should be corrected to the birth year if an exact result is sought, since all cross comparisons with a nativity, whether with stars or with the planets in another nativity of different epoch, should be referred to the equinox of the date of the horoscope for which the comparison is desired. It is common astrological practice to ignore the precessional displacement of the signs of the zodiac in the interval between different births in the same generation when making cross directions between friends or members of a family, but this is a wholly unwarranted practice and cannot be endorsed by the author. This is mentioned because of the bearing it has upon the correct use of this text. For many general purposes, however, such a refinement may be ignored when an exact solution is not the aim. However, when the personal event is not strictly personal in its origin; that is, when it arises through public events, or through the direct psychological inducements of another individual, then use the epoch of the event or the birth epoch of the influencing individual. See also Chapter IV on this point.

Second: Calculate the zodiacal conjunctions between planets and stars.

For this purpose there is great need that the Boss catalogue be recalculated to list the ecliptic longitudes of the stars, as well as the annual or ten-year rate of their longitudinal changes due to proper motion and precession. While the rule for computing longitudes from R. A. and declination is simple ¹ the work is tedious, and the cost of calculation and publication of

¹ See Chaney's **Primer**, pages 211•212, or Pearce's text, pages 260-261.

a comprehensive star catalogue for ready **astrological** reference is prohibitive in view of the prevailing lack of interest in the fixed stars among the majority of astrological students and professionals of the present period, even though two noted astronomers have expressed to the author their need of such work as an aid in their investigations of the radial velocities f the stars. However the student will find the celestial longitudes of 270 bright stars to the 3.5 magnitude given in Table, Chapter IX.

Referring to the Boss catalogue in its present **astronomical** form, we have given us the right ascensions and declinations f the stars. In the horoscope we have given us the planets' longitudes, as for instance D, Fig. 2. But from this single ordinate we cannot determine the corresponding Boss coordinates, AB and BM, necessary to yield the zodiacal conjunction,

M D, in all latitudes. For it must be plain that another star with greater right ascension and less declination, or vice versa, ay have the same ecliptic longitude as Algol, as is also true f a star with the same right ascension and extreme south declination

Therefore in referring a planet's longitude to **zodiacal** conjunction with the stars listed in the catalogue, it is necessary o calculate the longitudes of all the stars for reference-a prohibitive task, or that AB or BM be known or assumed. The best plan is to decide on the place it is desired to compare with he nativity, determine its geographic latitude and reduce this o geocentric as per Table I. Having now the longitude of the planet D, and the place's latitude or declination BM, we may d the required right ascension, AB, of the star as follows:

Rule 1: For North declination stars.

From Chaney's Table of Oblique Ascensions ¹, and for the <u>_geocentric</u> latitude of the place in question, find the oblique

¹ Chaney's **Primer of Astrology.**

ascension of a point on the ecliptic 90 degrees **east** of the planet's longitude in the nativity. From this oblique ascension **subtract** 90 degrees. Divide the remaining right ascension by 15 to convert to time and look up this right ascension in the catalogue. If in or very near that right ascension there is a star **having the same declination as the geocentric latitude of the place in question** then it is zodiacal conjunction with the planet, and the star is powerful in that latitude in **accentuating** that planet to whatever it may, by its own nature, its aspects and house placement, in the given horoscope signify. But if in the found right ascension there is no star of **north**

declination equal to the geocentric latitude of the chosen place, then that planet is not "brought out" or amplified in the native's life in that latitude, and assuming it was his need or desire that it should be accentuated you can say that he is truly "out of his latitude" in that respect. And by the same method you would find his latitude for him, and you will find and he will find that it will indeed "make all the difference in the world" in his affairs coming under that planet's "rule" or oscillatory frequency; or as some say "vibration" ¹

To example this rule. Assume a 1900 horoscope has the Sun in 24° 46'Ta and that it is being checked for fixed star influences in the latitude of New York. Assume that we do not already know Algol has that celestial longitude and circles in that latitude. We would find this to be so by reversing formula (2) Chapter II, thus:

¹ A similar check of each planet should precede advisement on location. In most cases it is impossible to obtain a desirable coupling of **all** the planets **in any one latitude**. The choice must depend on the main aim and on the relative significance of each planet with respect to its elevation and aspects. Thus an engineer or inventor should have Uranus coupled with the chosen latitude, but an artist should have Venus coupled in latitude - provided the planet by ray or elevation justifies its calling. And of course the mundo configurations between planets and stars must also be considered. For the R. A. couplings refer to right motivations, and the longitudinal couplings refer to the inclinations, disinclinations, demands or inducements. Unless this is kept in mind no sound advisements can be given. Nor should the latitude for one planet be chosen till it is seen the same latitude **does not couple fatally for some equally vital matter under another planet.**

(3) 24° 46′ Ta Assumed longitude of the Sun in nativity.

+90°00'"

24°46' Le, which in the geocentric latitude of
New York 40°34'N, gives

135°25' O. A ¹

-90°00'

45°25' R. A., which divided by 15 gives R. A. 3h 01' 40"

With this R. A. we now refer to the catalogue and tracing down the R. A. column to page 30 we find star No. 708 (Algol) has this R. A. and fulfills the requirements by having 40° 34' north declination, coordinating the latitude being investigated in this assumed case. It will be noted that north is stressed. This means the above rule must be modified for south declination stars, and that when entering the catalogue with the R. A. as found by (3) you must look **only** for stars of north declination, or forming **C**, **Fig 1** configurations.

Rule 2: For South declination stars.

From Chaney's Table of Oblique Ascensions, and for the geocentric latitude of the place in question, find the oblique ascension of a point on the ecliptic 90 degrees **west** of the planet's longitude in nativity. To this oblique ascension **add** 90 degrees. Divide the resulting **right ascension** by 15 to convert to time and look up this right ascension in the catalogue before. If in or near that right ascension there is a star it h south declination equal to the north geocentric latitude f the place in question, then it forms an **X**, **Fig. 1** configuration with the place and accentuates the planet in **that** respect.

To example this rule:

With this R. A. we refer to the Boss catalogue on pages 44 to 46 and find there is no star in **south** declination equal to that of New York, and consequently the Sun in 24°46' Ta does not excite any stellar opposition (X, Fig. 1) to the latitude of New York. The nearest to such configuration is No. 1121, but it has a declination which in 1900, the epoch assumed for example, relates it to a slightly higher geocentric latitude, namely 41'15', and from its rate of declination change as given in the catalogue it is easy to compute it will not come to the exact latitudinal nadir of New York till over 300 years hence. Therefore it is to be rejected in this case, or assigned to its proper **higher** latitude as a "solar amplifier" in our assumed case.

When using formula (4) do not consider **north** declinations under the R. A. computed. **Why** should need no explanation other than to say long and short oblique arcs in the northern and southern hemispheres are reversed.

¹ As equated from Chaney's table, page 82•84 of his Primer. This table is to be taken as reference wherever oblique ascensions are mentioned in this work.

CHAPTER IV

APPLICATION OF FIXED STARS TO MUNDANE ASTROLOGY

For this purpose the same foregoing principles apply, though the method of procedure can be varied somewhat to suit the particular problem.

Figures of eclipses, ingresses, new moons, great conjunctions and stationary positions of planets may be set up and the tars they configure in the foregoing manner, both by mundo and ecliptic conjunctions, are to be sought for in the catalogue. he declinations of these stars, corrected for the year in question- are then noted down and the events the figures may signify are to be watched for or predicted in the corresponding geocentric latitudes on earth.

Here it is pertinent to remark that when looking up planetary conjunctions with the stars the beginner is very likely to e confused by the number of stars that form close conjunctions with each planet in any astrological figure. He may at 'he outset think, like the skeptic, that coincidence has much o do with the evidence cited in this work. Let him persist and define his orb allowances, as urged in Chapter X, and he will come to think differently. Indeed, it should be plain that every planetary configuration indicates thousands if not millions of events ', some in the same place and many more scattered over e entire globe. Therefore the fact that there may be a core or more stars of fairly large magnitude in close con'

¹ There is no soundness in a logic that seeks to attribute some events others to either accident or **self-generated** volition. to a "First Cause" in the Cosmic Body or continuum, while attributing

junction with each planet at any given time, and that according to our theory these planetary configurations must express in the terrestrial latitudes of all such stars (and in various longitudes which are definable, in part, by the methods given in **The Earth in the Heavens**), is a condition necessary to account for the manifold events throughout the world, and which by an entirely different route of approaching the enigma has led no less a mind that Einstein's ¹ to revert to the expression "a tangle of world lines," as elsewhere quoted in this work.

A good example of how a given configuration between the planets, transmitted by the stars, indicates events in different places **on the same date** and even induces (electromagnetic induction) very similar events in these widely separated places, is given in Chapter VI, case 5. Let the reader dwell on that citation before he allows a first or second glance through Boss' monumental work to deter him. Of the several stars conjunction with a planet at a given time note particularly the latitude of those of **greatest magnitude** and forming the **closest** conjunctions with the planet. Do not be misled by wide orbs. Study very carefully Chapter X.

If it is desired to make intensive study of current or historical events at some particular place, either as related to great civic or catastrophic events, or to personal relations to a place or latitude, it is advisable in addition to consulting the author's companion work above mentioned to work out the C and D, Fig. 2 points for all stars circling in the given latitude, and to plot these points in a chart, marking the C points M (for mundo) and the D points Z (for zodiacal). Also to designate by + and -, or other manner, which points refer to zenith (C, Fig. 1) and which to nadir (X, Fig 1.) configurations. This in order to more readily observe and apply the **interpretative** principles earlier outlined.

¹ Or his spokesman, Professor jeans.

When all such points are to be computed proceed as follows:

Having looked up the geographic latitude of the place and educed it to geocentric as per Table I, go through the entire catalogue and note down all stars whose + and - declinations, corrected for the year in question ¹, are equal to the declination (geocentric latitude) of the place.

Next note down the R.A.s, corrected also to the year in question*, of all these stars, placing the R.A.s in two groups ¹ according as they belong to the plus or minus groups (north or south latitude).

Multiply all the R.A.s by 15 to convert them to degrees. Then:

Rule 1: To the R. A. of each star in the plus (north) group ADD 90°.

Rule 2: From the R. A. of each star in the minus (south) group SUBTRACT 90°.

Next, with each of these resultant oblique ascensions find 'n Chaney's Oblique Ascension Table the zodiacal longitude under the pole (geocentric lat.) of the place, or rather for the declination of the star if it does not exactly coincide with the latitude of the place.

Then:

Rule 3: From the resultant longitudes so found SUBRACT 90 ecliptic degrees from each star of the NORTH group. ADD 90 degrees to each of the SOUTH group.

The results are the **zodiacal** longitudes of the stars.

¹ If the event is one of nature, such as a storm or earthquake, for example, the stars' right ascensions, longitudes and declinations should be computed for the year of the event. If the event is personal, or due to direct human agencies, the stars' places should be computed for the birth epoch of the persons most "responsible" for the event. If the event is either a human or accidental direct reaction to or of some earlier invention, structure, charter or great civic movement, it is proper to compute the declination of the star for that time; but as to the longitudes and right ascensions of the stars they are in all cases to be referred to the equinox corresponding to that for which the planetary longitudes and right ascensions are taken in the given case. See also remarks on Case 5, Chapter VI. Also study carefully the points brought out in Chapter X.

The **mundo** or right ascensional points in ecliptic may be found as instructed in Chapter III, first part.

Of all the dates of reference relative to great world events, it is the author's opinion that eclipses should receive major consideration. This because it seems proven by actual tests, and because it is strictly in accord with the electromagnetic theory as explained in Chapter I and Chapter XI. That is, eclipses cause the greatest change in the earth's magnetic flux ~ and so induce the greatest "current change" in events, in both the electrical and popular sense of this significant phrase. Possibly second to eclipses should be mentioned the so-called "stationary" position of particularly the more massive planets, for then the inductive couplings of their fields with that of the earth reverses their direction, and this strictly according to electrical laws, and attested by observation, causes a change in the direction of the current flow and a corresponding reversal of current events. For if we reverse the input current in a transformer, or reverse the motions of a magnet or magnetic field relative 'to a coil, we reverse the output current. That when a planet changes its geocentric angle from the plus (direct) to a negative (retrograde) value, or vice versa, the phase relations of its field coupling with that of the earth is reversed, and the degree of mutual induction undergoes change similar to reversing the rotation of a tickler coil in a regenerative radio receiving set.

In fact, relative to stationary or reversing planetary field couplings, it was found by private collaboration between the author and Observer F. C. Loring of the United States Geodetic Survey staff aboard the **Carnegie** on its South Seas cruise in 1915-16 for the purpose of determining magnetic declination variations, that there was a measurable erratic irregularity of magnetic compass deviation and dip for **three or four days each time the massive planets were geocentrically stationary.** Unfortunately this useful data corroborating the author's

theory, was untimely interrupted by Loring's enlistment in ;he Great War, and he succumbed to injuries before he could set about arranging his observations in a form suitable for turning over to the author. His letters from aboard the Carnegie, however, verified the theory and expressed great surprise that the author as an "armchair engineer," thousands of miles from the point of their observations, was able to predict, before he left for the cruise, the major times when these "unaccountable" irregularities would superimpose themselves up on the annual and secular magnetic deviations, which it will e found depend upon precession. That is, upon a change in he plane of the solar electric and magnetic fields relative to he plane of the earth's equator and poles; this being due to he gyrating motion of the earth's poles around the celestial poles.

As at that time the author was not prepared to fully explain the cause in terms free from obscuring astrological terminology and few indeed at that time dreamed of the ramification of the electromagnetic law till later radio research r ought it more to the fore, it was thought it would be unwise, n view of Observer Loring's position, to call the results of this private collaboration to the attention of Dr. Bauer, then in charge of these matters of the Geodetic Survey. It is on such data and the brilliant researches of Biot relative to the characteristics of spherical magnets, as much as upon the electrical authority of Steinmetz, Morecroft and others, and upon the excursions of Bragdon, Ouspensky and Einstein into the nature

of space, time and consciousness, that this work is found and by which it must stand or fall as but incidentally an astrological text.

CHAPTER V

VERIFICATIONS BY NATIVITIES

In this chapter will be given a few examples by way of showing how latitudes are meshed with the destinies of individuals via the planets forming meridional and celestial conjunctions with the fixed stars circling in those latitudes.

Readers unfamiliar with the zodiacal signs will follow the examples more readily if they memorize the symbols which appear frequently in the calculations and explanations.

of	Aries	n	Leo	1	Sagittarius
8	Taurus	тр	Virgo	1/3	Capricorn
II	Gemini	101	Libra	227	Aquarius
50	Cancer	m	Scorpio	×	Pisces

Wherever reference is made to aspects in nativities or eclipse figures, the terms have the following connotations, the planetary, midheaven or ascendant aspects (electrical axes) being referred to the earth's center and with references to the geographic point of events.

Conjunction	0o	Square	90°	
Semisextile	30°	Trine	120°°	
Semisquare	45°	Sesquiquadrate	135°°	
Sextile	60°	Quincunx	150°°	
Opposition 180°				

The first three cases will be related to one event-a group calamity, since in such cases the causalist wishes to know how

they all "happened" to be "there" to share an experience or fate not of their conscious planning. And, too, because it is often said by the thoughtless that such events disprove astrology-"they could not all have had bad horoscopes!" Again, these cases will aptly instruct the astrologer or theosophist as to the connection between the fixed stars and "cosmic events" affecting whole groups.

Case 1

John J. Astor was born July 13, 1864. He sank with the Titanic on April 14, 1912. The reported location was

Collision 41° 46' North 50° 15' West Sinking 41° 16' North 50° 15' West

How did his horoscope connect his death with these latitudes?

From the above birth date we find Uranus was 26°53' Ge, in R. A. 86°'36'. Mars was transiting this point at the Lunar eclipse on April 1, 1912. Consulting the Boss catalogue we find star No. 1463 in the year of his birth, 1864, was in R.A. 86°54', close meridional or mundo conjunction with his Uranus and with the eclipse-foreshadowing transit of Mars. The catalogue shows this star in 1864 circled in geographic latitude 41° 21'S, about five miles amiss of exact geodetic opposition to the latitude of the sinking. In the year of the event it was in 41° 19' S.

In the year of the tragedy star No. 262 circled in geographic latitude 41°48'N, two miles north of the collision. Its longitude at the time was 2°30' Ta, conjunction with his Mars in 3° Ta in opposition to his Moon, and these excited by the transit of Uranus in 3°14' Aq, square thereto. Star No. 538 was mundo conjunction with his Mars and in 1912 it circled in geographic latitude

41°16' N the latitude of the sinking.

As Neptune rules or indicates the sea, and at his birth was in 8°22' Ar, in opposition to his Saturn in 12° Li, and as the Sun and Moon were respectively in orb conjunctions with these

points at the Lunar eclipse of April 1, 1912, we must expect the position of his Neptune to also point to the fatal latitude. Let us turn to star No. 5996 and work it out as an example of the procedure.

23hrs.13'38' R.A. No. 5996 in 1900.

- 1'41" Correction to 1864 (2".83 x 36 yrs.)

23hrs.11'57" R.A. No. 5996 in 1864. This multiplied by 15 gives 347°59' R. A. +90°00' As per (3) Chapter III.

(a) 437°59'

<u>-360°00'</u> Reject circle when (a) exceeds 360°

77°S9' O.A. This in the declination of the star 41°02'N (see below), gives 9°O1' Ca as per Chaney's oblique table, page 84, his **Primer.**

This is 90°Ol' from the equinox.

<u>-90°00'</u> As per (3), Chapter III.

9°01' Ar Longitude No. 5996 in 1864. This is conjunction Astor's Neptune 8° 22' Ar ¹.

And for the declination

41°13'38"N declination No. 5996 in 1900 as per catalogue

<u>-11°45"</u> Correction to 1864 (19".6 x 36 yrs.)

41°O1'53"N declination No. 5996 in 1864 (Used above to solve long. of star)

+11°37" Correction to geographic as per Table I

41° 13'30"N geographic latitude of the star in Astor's birth year; 1864.

¹ See Chapter X for exact solution.

This is seen to be about two and one-half miles south of the reported sinking.

Case 2

Mrs. John J. Astor was born June 19, 1891. She was saved from the wreck. In this nativity the Sun was 27°.5 Ge, in trine to Uranus in 27°.5 Li. This indicated the sometime sudden loss of husband, the more so as his Uranus was close conjunction with her Sun. It follows that the place of Mars at the Lunar eclipse, April 1, 1912, was conjunction with her Sun, and also conjunction with his Uranus as stated in his case. Consequently No. 1463 applies to her case, and at the epoch of her birth it circled in latitude 41°20'S. But for her he Sun is the symbol of life. It reads fatally for the husband, however, as its aspect to Uranus symbolized her sudden loss of him.

In her birth year star No. 1633 was in longitude 10°05' Can, conjunction with her Mars. Its geographic latitude at her birth works out 41°46'S, exactly geodetic opposition to the point of collision, 41°46'N. Had the vessel sunk in the latitude f the collision this would have been threatening for her. This star's position was square to Mr. Astor's Neptune and Saturn, and the Sun and Moon at the above-mentioned Lunar eclipse were square to her Mars.

As Mrs. Astor inherited a large fortune as the result of the tragedy, it is not surprising to find her Jupiter (the "Greater Fortune") in 17°30' Pi, the R. A. of which is 348°30' ¹, in close **mundo** conjunction with No. 5996 in R. A. 348° 18°, which we noted in his case to be **zodiacal** conjunction with 's afflicted Neptune and; for him, almost exactly in the latitude of the sinking. At the epoch of her birth, however, this tar circled in geographic latitude 41°22'N.Consequently, as he vessel drifted south after the collision she was doubtless taken off in one of the boats as the ship **drifted across this lati**

tude before floundering farther south in 41°16'N. It is seen this star's configuration with her Jupiter was by right ascension, and so in the matter of material fortune the bereavement "turned out right" for her.

Case 3

William Stead was born July 5, 1849. He sank with the Titanic. At his birth Mars was in 5° Ta thus conjunction with Astor's Mars and therefore conjunction with No. 262 and No. 538 as cited in **Case I**, where it was seen their 1912 positions **circled exactly over the two latitudes involved.** Moreover, Stead's Saturn was in 7°49' Ar, conjunction with Astor's Neptune, and therefore in zodiacal conjunction with No. 5996, which at his epoch circled in 41°09'N, towards which the vessel was drifting when it floundered about seven miles to the north thereof. Stead's Sun and Moon were afflicted (square) by Saturn at birth, and at the Lunar eclipse on April 1, 1912, the Sun and Moon were respectively conjunction and opposite his Saturn, thus foreshadowing the issue.

Star No. 1633, cited in **Case 2**, was conjunction with Stead's Sun, emphasizing its square to his Saturn. Its geographic position at his epoch was 41°44'S, circling opposite the latitude of the collision within two miles.

A victim of the sea, we find his Neptune in R. A. 336°45′ ¹, in close mundo conjunction with No. 5828 in R. A. 336°55″ and with No. 5831 in R. A. 337°02′. In the fatal year these stars respectively circled in geographic latitudes 41°14′S and 41°15′S, a geodetic opposition to the sinking in 41°16′N.

These are not all the stars involved in these three cases, but they suffice to illustrate the cosmic (stellar) connection with our puny system of planets, or human "plan its."

Thus do the fixed stars modify or intensify our plans in ways sometimes unsought and in places either sought or passed over with other intentions. If all, the stars in the fatal latitude

¹ See Chapter X for exact solution.

¹ See Chapter X for exact solution.

Were considered and analysed with what might be termed "electrogeomectrical" logic, it would be found mathematics and electrical laws code the event very clearly. All that can be done here is turn the flashlight here and there for a mere glimpse of small cross-sections of the complete picture.

Case 4

Charles Post ("Cereal" Post) was horn October 26, 1854. On a trip to Santa Barbara, California, he there committed suicide in 1914.

The latitude of Santa Barbara is 34°26'N.

As suicide is of the nature of Uranus we first look to this planet. At his birth it was in $15^{\circ}12'$ Ta and in his progressed \sim horoscope for the year of death it was $13^{\circ}04'$ Ta. Consulting he catalogue we find star No. 646 to be

2h 45'21" -2'53" 2h 42'28"	R. A. in 1900 Correction to 1854 (3".68 x 46 years) R.A, in 1854.
<u>x15</u>	
40°37'00"	R. A. Longitude 13°04' Ta , mundo conjunction with his progressed Uranus 13°04' Ta

and

34°38'S3"N declination No. 646 in 1900

11'29" Correction to 1854 (14".97 x 46 yrs.) ¹

34°27'24"N declination in 1854

+10'56" Correction to geographic position, Table 1

34°32'20"N geographic latitude.

While this is some 1 4 miles north of Santa Barbara, this star by precession passed over the city about 1805. Whether Spanish settlement was founded there that far back is unknown to the author, but this star has been noted scores of times in connection with events in that city. As the configuration to the star was by right ascension he was impelled to suicide (Uranus) not by "inclination" (ecliptic arc) but because it seemed to him the "right" (right ascensional arc) thing to do.

In this nativity we also find Mars was in 11°22" Sag (subject to a possible small correction for his birth hour, which is un• known), in square to Neptune and opposite Saturn. This array of afflicting aspects was excited by Saturn transiting 11°22' Ge and 11° 53' Ge at the Lunar and Solar eclipses preceding or foreshadowing the event. It is therefore consistent with our theory that we find star No. 4258 was in R.A. 249°40' in his birth year, in mundo conjunction with his Mars in R. A. 249°37' (subject to fractional correction for his hour.)

The geographic latitude of this star in his birth year was 34°30'N, and in 1914 was in 34°23'N, the mean of these positions being the latitude of the city.

Needless to say could he have avoided that location and a few other specific latitudes at that period, his failing health, made worse there, would not have so impelled him to the act. However, this configuration was also by right ascension, and it is not for us to judge he did not do "right" under the condition.

The theosophic brethren tell us "the lords of Karma prevail." If these lords be the fixed stars, with their manifestations of the Invisible Power (electromagnetic waves), their view seems justified-at least until light and still more light dispels the Saturnine darkness into which Man, in ignorance, is born. When the race shall have attained to a full knowledge

¹ The **secular** change amounts to but 9" and is ignored in this and other citations for simplicity. It suffices to consider the **annular** change.

it will be very different. It will engineer its courses with the same skill as radio, for instance, is being engineered-and by precisely the same laws. Therein lies its future freedom, in the general sense of the term. But it must evolve to this knowledge It will not he convinced before the appointed time. That time, however, is nearer than some may think. And it is hoped this exposition may be a beam of the first light of that day.

Lest these somber examples inadvertently convey the impression that fixed stars are intrinsically evil, despite the very clear evidence in all these cases that the quality of the event was apparent in the mutual planetary ("plan it") aspects and that these were merely amplified or "carried" by the stars to the places in question, let us now cite instances to dispel such fear and to show how fixed stars may augment and transmit good in places where the benefic planets-the good "plan its" -perform before the cosmic microphone and superimpose their beat notes upon the carrier waves of the stars.

Case 5

At the births of Kings Edward VII and George V, Jupiter, lord of princes, high honors and the "Greater Fortune", was respectively 21°28' Sag and 25°40' Sag, in both mundo and zodiaci1 conjunction with star No. 4511, whose mundo points (C, Fig. 2) at their birth epochs were 26°37' Sag and 26°46' Sag ¹. This star circles in geographic latitude 51°00'N (southern England). The very bright star No. 4541 was also conjunction with Edward's progressed Jupiter and near George's natal Jupiter, she star's mundo longitudes at their epochs being 28°23' Sag

and 28°30'S ag ¹. This star circles geographic latitude 51°42'S ag a little north of London. As both these stars are near the sols their precessional change in latitude is extremely small, and they may be considered throughout centuries of England's history. Falling on the Vth house of England, as found in **The Earth in the Heavens**, they particularly refer to British Royalty, as also to royalty revenue in any sense. Conjunction with these stars we find Victoria's Uranus and Neptune. Her reign may be said to have begun a new (Neptune) era and virtually closed with a revolution (Uranus, the Boer War). Kipling's Mercury, Venus and Mars, Conrad's Mercury, Davy's Sun, Spencer's Uranus, Lord Robert's Moon, Newton's Mercury, were in conjunction with this star. All of them "starred" in these various planets' roles in England.

An almost endless array of examples could be cited. But we must not rush to the conclusion that but one star rules a country or large city. A careful study of the star catalogue will reveal other stars and zodiacal points equally significantly tied in through the "tangle of world lines" with the horoscopes of London's "stars" and with London stars.

As example: George V's Venus is in 9°38'Ta ², mundo con³ junction with No. 585, the C point of which, at his epoch, was 9°'07'Ta. This star at his epoch circled in geographic lati-

¹ The celestial longitudes of this star at their epochs were 25°42'Sag and 26°00'Sag; very close conjunction with George V's Jupiter in 25°40'Sag. It may also be noted that Saturn has been transiting the R. A. of this star during His Majesty's recent serious illness, and at the election of the Labor (Saturn) Party on May 31st (1929).

To here intrude a personal note to show that a star may relate to several places in the same latitude, it may here be said that while the author resided in a Canadian retreat in the exact latitude of this star, while endeavoring to develop the principles given in this text, his Sun directed to the conjunction of this star and passed the opposition of his Moon and Mars at the same time. **Then** and **there** he and two immediate relatives sub, submitted to major operations (Mars) and his property was twice menaced by fire (Mars), all within a year's time. In other words, the Solar opposition to Moon and Mars was decidedly amplified by the 2.2 magnitude of No. 4541 in that latitude.

¹ The celestial longitudes of this star at their epochs were 21°27' Sag and 21°46' Sag. Thus the star was exact zodiacal conjunction with Edward VII's natal Jupiter, and his Jupiter directed to its right ascension in his early twenties, as also to the zodiacal conjunction of No. 4541.

² On the London Midheaven. See Table I, The Earth in the Heavens.

tude 51°34N 'and takes in the north side of London in its daily rounds. Conjunction with this star we also find Spencer's Sun, Conan Doyle's Mercury, Corelli's Sun, Stead's Mars, Shakespeare's Sun and Moon, Victoria's Mercuryand so on.

By way of pointing a contrast we may turn again to Case 3. If we compute Stead's Birthday Locality for London, after the manner instructed for BL figures in The Earth in the Heavens, we find Jupiter in the Midheaven as indicative of his success there. But we must conclude that his Jupiter was also coupled with fixed stars in the latitude of London. Investigating we find:

Stead's Jupiter in 22°21'Leo in latitude 0°52'N was in R. A. 135°O1'

Star No. 2430 circled in latitude 51'37'N in R. A. 133°40' Star No. 2433 circled in latitude 51°47'S in R. A. 134°16'

The latitude is practically that of London, the planet is the `greater benefic" and the coupling is by right ascension. And o he did "right well" there and was "well within his latitude" in his undertakings. Contrast this with his BL ascendant opposite Mars in the proximate longitude of the sinking of the Titanic, and Mars conjunction with stars No. 262 and No. 38, circling exactly latitudinally zenith to the points of the collision and sinking.

Or we may compute Conan Doyle's BL figure for London and find Jupiter close to the zenith and in R. A. conjunction with stars No. 1499 and No. 1500, and these circle the approximate zenith and nadir of London's latitude. Or we may note that Lillie Langtry was born with Venus t the London zenith and in R. A. conjunction with No. 409 circling in that latitude. This star was also **zodiacal** conjunction ion with Charles Chaplin's Venus and Mars ¹ on England's midheaven, but sadly handicapped by the square of Saturn

¹ Here the zodiacal ray to Venus and Mars showed the "inclination" to act; but it required the American R. A. coupling to find his right vehicle.

near England's Ascendants in Leo. Contrast this with his Jupiter on the California Midheaven in R. A. conjunction with No. 4721 circling over Southern California in latitude 33°30'N and conjunction with Vega, one of the foremost stars of America, as it circles over Washington. His BL figure for California shows his Venus and Mars on the Ascendant and in R. A. conjunction with No. 582, 646, 670 and 746, all circling the approximate latitude of Los Angeles. He was born April 16th, 1889. Let the student check up these facts for himself.

If we turn to the case of George B. Shaw, born July 26th, 1856, we find his BL figure for London places Mercury, Sun and Venus in superior elevation in the 9th house ¹, and his Sun and Venus are R. A. conjunction with No. 2213 and No. 2250 circling proximate to the **nadir** of London in the latitudinal sense. If this seems contradictory to the theory of nadir stars, let the reader remember that the brilliant Mr. Shaw is, as a critic, truly destructive of popular English notions of art, society and government—a veritable bull in a china shop.

In this connection the student is to understand that latitudinally nadir stars are not necessarily adverse for personal success nor even eventually adverse to the community life, but rather when they contribute to success they do so through some fling against the government, pubic policies or high potentates, or by striking at the root of things rather than by bolstering up the existing standards of the town or nation. While the effects are thus **levelling** they are not necessarily vicious or criminal unless the planets or aspects they tie in with so indicate. The student must remember that the wrecker is in some cases the forerunner of a better **foundation** (nadir) for a better upbuilding (M.C.). Note in this case it is the benefics that are involved, and that they were well aspected in his nativity. It would be as great an error to assume **latitud-**

¹ Venus in the 9th house is common among both dramatists and poets.

inally nadir stars adverse for "everything" as it would be to assume a planet on the longitudinal nadir as always adverse. Lincoln, with Jupiter at the nadir, laid down a good foundation for American unity for all time, though in his time he was far from universally popular because of his support of the anti-slavery cause and that of the plain people.

From these and hundreds of other cases it may be learned that if a certain planet or planets, by nature, placement or mutual aspect, indicate reverses to character, health or fortune, the native should avoid the **latitudes** coupled with stars which configure these planetary afflictions. He will fare infinitely better in latitudes where the benefics, or the best rayed planets, are amplified by bright stars.

So, too, one person's "lucky star" may be another's "evil genius", not because the star's waves are intrinsically partial as to whom they shine upon, but because in the latitude in which the star circles it amplifies one individual's good planets ("plan its") and another's bad "plan its." It is this difference in their induced modes of planning in that location that determines the difference in the results. There the one is well located and prosperous. The other is a misfit. The Invisible Power we call God rewards the one and punishes the other because the one is attuned to the universal law and the other has not found his true place and work in the cosmic body.

It is quite true that if or when the individual will follow his 'best lights" (his Sun) he will seldom if ever need any astrological engineering to place himself aright. But in so far as he fails to cultivate his personal wisdom or the "wee sma' voice" of his soul (Sol or Sun), and in so far as he relies on his planets or "plan its" and they reflect such afflictions (bad aspects) as give rise to misdirected sentimentality or faith (Neptune), misguided self-determination (Uranus), a pitiful humility or shortsightedness (Saturn), a misplaced or overweening pride or ambition (Jupiter), a poor grade of executiveness or com-

bativeness (Mars), an excessive love of ease or pleasure (Venus), or a questionable wit (Mercury), then he will be "out of his latitude" in any latitudes where fixed stars accentuate any of these planetary defects; and neither prayers nor persuasions will prevail nor good advice be welcomed. He will suffer as one breaking the Law-call it gravitation, magnetism, God's love, or any name you like. It is not that the Invisible Power is at fault. It is just that the unfortunate has not attained to wisdom within the law.

It is, in fact just as the old negro pappy in "Hearts in Dixie" told the white doctor-"We just didn't know, Doctor, we just-didn't-know!"

CHAPTER VI

VERIFICATION BY WORLD EVENTS

As stated in Chapter IV, eclipse configurations are the principal indicators of the great events of the year, though the ingress, stationary positions, and great conjunctions and oppositions of the planets should receive attention. There is a very clear reason for this to be found in the modern electromagnetic wave theory as applying to the light spectrum wave band, and a mere outline of this is given in Chapters I, IV and XI of this work.

As this chapter must be limited to a few examples in localizing world events, it must suffice here to refer the reader to the earlier quotation of Jeans on Einstein's view relative to points of intersection of world lines, and to remind those unfamiliar with astronomy that the ingress or equinox and also particularly the lunar nodes where or near which eclipses occur, are among the principal points of intersective reference defining the linkage of the electromagnetic fields of the earth, Sun and Moon. It may be said, however, before passing on to examples, that the nodes of the planets need consideration. For example, Uranus was approaching its north node in both 1776 and 1861, and passed its node during the revolutions then begun. It will again pass its north node between 1942 and 1946 1.

Case 1

At the risk of creating the false impression that there is a scarcity of convincing examples, let us refer again to the Titanic

¹ See Chapter V, Example 7, The Earth in the Heavens.

disaster in order to show this event was foreshadowed by the eclipses of the vear without reference to the individual horoscope of anyone aboard.

Date: April 14, 1912. Collision 41°46'N. Sinking 41°16'N. At the Lunar eclipse on April 1, 1912, Mars was in R. A. 87°53', mundo conjunction star No. 1463 in R. A. 87°17' in 1912 and in geographic latitude 41°19'S, latitudinally nadir to the point of sinking.

At the times of collision and sinking, Mars was respectively in R. A. 95°36' and 95°55', in mundo conjunction with star No. 1633 in R. A. 95'51' and in geographic latitude 41°47'S, geodetic opposition to the point of collision 41°46'N, and mundo conjunction with No. 1631 in R. A. 95°44' and in latitude 41°07'S, a close opposition to the latitude of the sinking in 41°16'N ¹.

At the Solar eclipse on April 17, 1912, Mars was in R. A. 97°16', near its place at the accident, and therefore in a near mundo conjunction with No. 1631 and No. 1633 cited above.

At the Lunar eclipse on September 26, 1912, Mars was in R. A. 194° 31', mundo conjunction with the following stars:

Star	R. A.	Geographic Lat.
No. 3391	195°24' in	1 41°18'S opp. sinking
No. 3423	196°52' ir	141°16'N conj. sinking
No. 3414	196°32' ir	1 41°46'S opp. collision.

It is here seen the latitudinal co-ordination is remarkably close ². If those inclined will make a comprehensive study of these eclipse figures, as well as of the Solar eclipse of October 10th, 1912, they will find the foregoing is but an illustrative

¹ In The Earth in the Heavens, Chapter V, Example 10, it is shown Mars was in the Ascendant of the fatal longitude, in trine to the Midheaven.

² The R. A. couplings are here given only in the celestial latitude or field plane of Mars. If we project Mars' ecliptic longitude on the equator we obtain R. A. 196°52', exactly mundo conjunction with No. 3423. See Fig. 4, The Earth in the Heavens.

portion of the total evidence. It is hoped our critics will be diligent before they resort to the age-old catchword of ignorance and sloth and cry "coincidence!" So, too, is a collision of two autos at a crossing a "coincidence," but no sane judge in a court of law will accept that explanation from a thoughtless driver. He is quite properly sentenced to learn the rules and apply them.

Case 2.

The San Francisco earthquake and fire, April 18, 1906.

Latitude 37°46'-48'N. Some damage over area between 37°30' and 38°15'N. The basic aspect was Uranus **stationary** in opposition to Neptune, on the zenith and nadir of California and respectively rising and setting on the Pacific along a line joining Australia and the Aleutian Islands, along which there was evidently some upthrust of the ocean floor diverting the Japanese current northward toward Alaska and considerably changing the climate of Alaska, British Columbia and the Pacific states ¹.

Significant configurations at the proper times of reference for the year are as follows:

Pheno	mena	Neptune	Uranus		
Moon ecl.	Feb. 9	7°59' Can	6°56' Cap	Mars	3°16' Ar
Sun ecl.	Feb. 23	7°46' Can	7°30' Cap		
Ingress	Mar 21	7 ° 37 'Can	8°16' Cap	Venus	8°42' Ar
Event	Apr. 18	7°52' Can	8°29' Cap	Mercury	7°33' Ar
Solstice	June 22	9°44' Can	6°46' Cap	Jupiter	3°50' Ca
Moon ecl.	Aug. 4	11°18' Can	5°09' Cap		
Sun ecl.	Aug. 19	11°46' Can	6°46' Cap	Mars	7°O1' Ca

Coordinating with fixed stars we find:

Star No.	Mundo Long	Geographic Lat.
57	4°24' Ar	37°38'N
1670	6°39' Can	37°49'S
1699	7°46' Can	38°15'S
1705	8°09' Can	38°06'S
1713	8°26' Can	38°15'S
1742	9°52' Can	37°52'S
4732	8°32' Cap	38°36'S
4752	9°34' Cap	37°42'N
4754	9°34' Cap	37°42'N
	Zod. Long.	
6008	7°52' Ar	37°52'N

It may also be noted that at the time of the shocks the Sun was in 27°35' Ar, in semisquare to Saturn and conjunction with the following stars:

No. 402 mundo long. 27°45' Ar in geographic lat. 37°51'N

No. 407 mundo long. 27°55 Ar in geographic lat. 37°49'S

At the time of event Mars (fire) was semi-square to Mercury and Neptune and sesquiquadrate to Uranus, and its R. A. was 50°43', in mundo opposition to No. 3926 in R. A. 230°14' and in latitude 37°54'N. This is mentioned as it suggests the opposition of a planet to a star in C, Fig 1, configuration to a place may act like a nadir star-destructively. This is open to further investigation, and for simplicity such factors are omitted from the examples of this text.

It will be seen that all the stars in conjunction with Neptune on the California nadir are also **latitudinally** nadir thereto, and therefore in truly destructive position. It may be objected that the two stars conjunction with Uranus held the latitudinal zenith and should not be included as destructive in the light of the principles laid down. These, however, in a great measure refer to the **rapid (Uranus) upbuilding (zenith) of**

¹ See The Earth in the Heavens, Table I; also Chapter V, Example 5.

the city following the disaster. The after effects of events must receive consideration in all cases. Moreover, the fact that Uranus was opposite Neptune on the nadir involves the same principle as above mentioned with reference to the stellar opposition to Mars.

Case 3.

The Tokio earthquake, September 1, 1923. Latitude 35°39'N ¹.

The Solar eclipse on September 10, 1923, is to be taken as the principal indication of this event, although the preceding eclipse should be studied as an exercise of the student's skill in applying the rules of the work. The Solar eclipse occurred in 17°06'Vi ², in opposition to Uranus in 15°30'Pi. These points configured the following stars:

No. 24 zod. long. 15°46'Pi in geographic lat. 35°45'S

No. 2679 zod. long. 17°32'Vi in geographic lat. 35°40'S

It will be seen in this remarkable agreement of the figures that both stars were latitudinally **nadir** to Tokio, again verifying the theory. Also that the configurations are **ecliptical** and that the shock originated in or near the city, whereas in the case of most of the stellar configurations with the San Francisco disaster the aspects are **mundo**, and it is well known the shock originated far out in the Pacific-doubtless along the line mentioned in discussing that case. At this point the reader should refer back to Chapter II and review the principles there outlined. It will clear his mind of confusion in following these examples.

And if he will turn to a copy of Raphael's **Table of Houses** for the latitude of Tokio, he will see that when 17°-18'Ge rises in that latitude, in square to the place of eclipse and No. 2679, that 26°-27°Le, is in right ascension on the ¹ nadir.

This of course means according to **Rule 2**, Chapter III, that the mundo longitude of No. 2679 would be in 26°-27°Le, in right ascensional conjunction with the place of Mars 26°Le at the time of the preceding Lunar eclipse on August 23, 1923. This shows how a **Table of Houses** may be used in an approximate manner when searching for the cause of events. The equations can then be perfected by **Rules 1 and 2**, Chapter III. In the same manner we see in the Tokio Table of Houses that when 15°46'Sag (the western square of No. 24 and Uranus at the eclipse) is rising about 2°Ar is on the nadir, and this is the approximate mundo longitude of No. 24. If the stars were in **north** declination you would take the ascendant in the **Table of Houses** a square to the **east** of eclipse or planet, and the **zenith** for that ascendant would show the mundo longitude and R. A. of a star **in that latitude** whose zodiacal longitude was conjunction with the eclipse or planet. Such a preliminary method saves a great deal of labor in tracing out an event.

Case 4.

The Charleston, S. C., earthquake, August 31st, 1886. The latitude is 32°45′N.

The disastrous shock closely followed the Solar eclipse on August 29th, 1886. The eclipse occurred in 6°04'Vi, in Semisextile to Uranus in 6°07'Li, and Mars transited 6°Sc. on the day of the shock. Other eclipses were involved but this one suffices to show the principles outlined. The following stars relate to these longitudes and to the latitude of Charleston.

No. 2849 mundo long. 6°18'Vi in geographic lat. 32°45'N

No. 3241 mundo long. 5°41'Li in geographic lat. 32°23'S

No. 3659 mundo long. 4°40'Sc in geographic lat. 32°53'S

No. 3664 mundo long. 5°12'Sc, in geographic lat. 32°52'S

In **The Earth in the Heavens** it is shown how the eclipse, Uranus and Mars configured the longitude of Charleston. The student should endeavor to perfect the above longitudinal

¹ This position is for the observatory there. The whole city must subtend at least 3' to 5', possibly mostly north from the observatory site.

 $^{^{\}rm 2}$ Conjunction with the Tokio M. C., as shown in The Earth in the Heavens, Chapter V, Example 3.

couplings by considering the planetary latitudes as instructed in Chapter X.

In all these four cases the longitudes and geographic latitudes of the stars are taken for the year of events, since it \sim cannot be said direct human agency or volition was responsible or them, at least in cases two, three and four.

Case 5.

The following news items appeared in the **Vancouver Daily Province** of October 30, 1923. They are a fair example of hat the reading public dismisses as simply "a peculiar coincidence." Similar cases of like events on the same date, but happening at widely separated geographic points, may be frequently clipped from the public press.

"Calgary, Oct. 30.-Fireman Hugh McShane of No. 3 Firehall, lies n the General Hospital dangerously injured; Fireman George Smith s suffering from lacerations of the face, and Driver J. Livingstone sustained several cuts about the head, when the city fire department truck they were riding on crashed into two telephone poles on Monday afternoon. The truck became unmanageable when the steering gear buckled and broke while returning from a fire."

"Saskatoon, Oct. 30.--Firemen were injured, two of them seriously, n Monday night, when a seven-ton hose wagon speeding at thirty miles an hour to answer a false alarm, struck the rear of a sedan taxi-cab which, witnesses said, tried to beat the truck across an intersection The sedan was torn to pieces, the driver miraculously escaping with barely a scratch. After striking the taxi, the truck uprooted n Imperial Oil gasoline pump, setting fire to the spilled gasoline, mashed a large plate-glass window in the filling station and then topped in a vacant lot, where it took fire."

"Everett, Wash., Oct. 30-Dennis Boyle, 55, a fireman and Dan Michel, 58, bricklayer, were instantly killed, Fire Chief W. A. Taro was probably fatally injured, and four firemen and two Everett residents were severely hurt when a fire-truck collided head-on with lire Chief Taro's automobile on Monday night at the intersection of Hewitt street and Colby avenue."

Let us see how we may relate all three events to the same eclipse and same planetary aspect on the date of the events, by coupling them with fixed stars in the latitudes of all three places.

The latitudes are:

Everett 47° 58'N. Calgary 51°02'N. Saskatoon 52°15'N.

As two of these events were nocturnal and the other late in the day, we tie them in with the Lunar eclipse more than with the Solar eclipse, because the Moon is well known to dominate the night hours ¹. The preceding Lunar eclipse on August 26, 1923, occurred with the Moon in 2°11'Pi, and of course the Sun was in 2°11'Vi. At the Solar eclipse on September 10, 1923, Mars (fires, accidents) was in 6°16'Vi near opposition to the eclipsed Moon. What stars configured these points?

0°32'Vi geographic	lat. 5°02'S
2°1 3'Vi geographic	lat. 47°30'S
3°19'Vi geographic	lat. 47°52'S
6°47'Vi geographic	lat. 48°Ol'S
7°40'Vi geographic	lat. 48°O1'S
7°46'Vi geographic	lat. 52°09'N
	2°l 3'Vi geographic 3°19'Vi geographic 6°47'Vi geographic 7°40'Vi geographic

On the night referred to, October 29th, the Moon formed a square to Mars, they being respectively in 7°11'Ca and 7°11'Li This nocturnally (Moon) accidental (Mars) configuration for firemen and fire apparatus (Mars) at crossings (square aspect), tied in with the following stars.

No. 1747 zod. long.	7°42'Can geographic lat. 52°31'S'
No. 1755 zod. long.	7°57'Can geographic lat. 51°22'S
No. 1750 zod. long.	8°14'Can geographic lat. 47°55'S
No. 3239 mundo long.	6°21'Li geographic lat. 51°1 3"S
No. 3 261 mundo long.	7°17' Li geographic lat. 52°09'N
No. 3292 mundo long.	9°09' Li geographic lat. 48° 19"S

¹ Especially when visible between sunset and dawn. For then it reflects the Sun's electromagnetic waves upon the night side of the earth.

Again it will be noted that in both groups the nadir (south latitude) ¹ stars predominate in these destructive events. It s also seen that taking the geographic latitudes of all these ,tars for the year of the event results in this case in a more significant disparity when compared to the latitudes of the three events. This may be partly due to some of the stars pressing over the latitudinal nadirs or zeniths of the cities at the time of their early settlement or incorporation, or at the time he men most involved and responsible for the accidents were born. The latter has often been found to be the case in events involving human agencies. This in a measure may be seen by studying Chapter V. In this case no data on the firemen were available to the author.

Case 6.

To example the zenith and nadir effects of the stars, let us refer to the Declaration of Independence, July 4, 1776. On that date the Sun was 13° Can in square to Saturn 15°Li. As Saturn rules land interests, and as England through the Revolution lost half her American possessions to the freed colony, our theory argues this configuration should tie in with **nadir** south latitude or X, Fig. 1) **stars in the latitude of London or England,** and with zenith (north latitude or C, Fig. 1) stars n the **latitude of Philadelphia** where the Declaration was signed. We find this was indeed so as follows:

Star No.	Mundo Long. 1776	Geo. Lat. 1776
1841	12°56'Can	39°54'N
1842	14° 15'Can	51 °47'S
3411	16°07'Li	39°55'N
3410	15°39'LI	51°34'S

As the latitude of London is 51°32'N and that of Philadelphia is 39°57'N the agreement is quite close, and the positions respectively latitudinally zenith and nadir as required.

It is thought these few cases will suffice to show how the principles work out in widely different kinds of events. The correct use of the text will be seen to depend not only on a mathematical grasp of the problem, but it also demands good judgment in attributing the event to the proper planets in each case.

¹ But when the event is in south latitude of course the northern stars are to be considered as nadir in effect, and south stars are zenith.

CHAPTER VII

VARIABLE STARS

Table II gives the astrologically useful data of the variable stars listed in the Boss catalogue, excepting four in the South Arctic and one in the North Arctic, which probably have little significance unless it be relative to polar expeditions.

These fifty variables are approximately half those well known to astronomy, and they are undoubtedly most, if not 11, the brighter ones.

For those who cannot master the computations necessary o apply the principles outlined in the preceding chapters, or who cannot afford a copy of the Boss catalogue, this table offers, in itself, a fruitful field for investigation, as little else than direct observation and comparison is necessary for its use.

It will be found, as the theory outlined in Chapter I dictates, that close mundo and zodiacal conjunctions of a planet with any of these stars **varies the intensity and field range of the planet's influence**, and best accounts for the great augmentations and diminutions of civic booms, and some individual careers, over a range proportionate to the degree of variability f the star and in periods bearing some definite relation to the cyclic period of variability.

Thus Mercury in conjunction with a variable star varies the intellectual or literary powers, Venus the range of artistic dramatic, social or diplomatic achievement or acclaim, Mars he range of courage, conquests or executive force, or the military strength in war, Jupiter the range of philanthropy, great financial fortunes, or the reaches of civic legislations and law enforcement, Saturn the range of building activities, of economic

programs, of public utilities, of hatreds, doubts and fears, or the cyclic fluctuations of chronic ills, Uranus the range of genius, industries, invention, management, distribution, riots and revolutions, or the fluctuating rate of divorce and suicides, and the intensity of earthquakes and cyclones, Neptune the range of fluctuation of faith, hope and charity, international issues, cooperativeness, ideality, indolence or dissolution, the intensity of floods, the rise and fall in the insanity rate, or the reaches of one's dreams.

These are necessarily but fragmentary suggestions, for obviously the mutual aspects of the planets and their particular elevations in the astrological figure must receive the usual attention, in giving judgment, as to whether the planet is otherwise well or ill qualified or dominant in the figure.

If a planet joins a variable star in the zenith it will fluctuate the public career, business and reputation; but if rising it is the personality that will show cyclic intensity and lethargy. In the 6th house it may merely vary the appetite or sickness or the usefulness of an employee or of a proffered service. In the 2nd house the income may vary greatly. And so on.

Thus these stars in no way change the usual judgment of a figure, save to add the indication of **variability** to whatever the planet by its own nature (as a crystal frequency control), its mutual aspects (angle of inductive coupling of its field with that of other planets) and its "house" placement (relation to the several electrical axes of the earth as itself a piezoelectric crystal) may signify.

Referring to Table II, column 1 gives the star's number in the Boss catalogue. In other catalogues these may have quite different designations. Thus No. 708 is Algol or, ß Persei; No. 5940 is ß Pegasi, etc.

Column 2 gives the range of variability in terms of magnitudes. From this may be estimated **how** much a planet's influence or message (its "plan it" frequency) is augmented and

65

diminished by the star (carrier amplitude). Thus a planet conjunction with No. 2627, as was Napoleon's Sun, has a range of the order of 5.2 to 10 magnitudes. In contrast, should the planet configure No. 1468 the range would be limited to a variation of one-half magnitude. It is therefore **essential** to note the values in this column when giving judgment. They are appended for that very definite purpose.

Column 3 gives the star's right ascension for the epoch 1900. The rates of change in this value have been omitted as hardly essential for ordinary purposes. They may be had from the catalogue. See column 5.

Column 4 gives the mundo (C Fig. 2) longitudes for facility in noting right ascensional conjunctions with the Sun. If a planet has little or no celestial latitude, or for approximate work, these values may also be taken as indicating mundo con' junctions between the planets and the stars, after the manner of some of the citations in preceding chapters. It will often save the labor of computing solar and planetary right ascensions when the source of reference is the usual astrological ephemeris. But if a planet has much celestial latitude and is reasonably near either equinox, so that it crosses the star's terrestrial meridian, as SBMN, Fig. 2, north or south of the ecliptic point of that meridian (C, Fig. 2) at a point where the inclination between the two planes is the greatest as affecting the position, as near A or E, Fig. 2, then for exact work the planet's R. A. should be computed with latitude, as its ecliptic longitude will not in such case exactly define its passage over he star's terrestrial meridian. Students should keep this in mind when applying the principles outlined throughout this text, as of course the same applies to all the mundo coordinations, whether the star is variable, single or binary.

Column 5 gives the change in column 4 values for each ten ears. And for periods within a century this column will also serve sufficiently accurate for correcting the values in column 3.

Example: Required the mundo longitude of No. 60 for 1950.

$$\frac{8'3x50}{10} = -41'.5 + 4°33' = 5°14'.5 \text{Ar}$$

If the desired date were 1850 you would simply reverse the algebraic sign at the top of column 5 and obtain

The same applies to columns 7 and 9, the signs as given apply **after** 1900, for periods **before** 1900 change plus to minus in column 5 and 7, and reverse those given in column 9.

Column 6 gives the celestial (D, Fig. 2) longitude of the star as computed from its R. A. and declination. To shorten the labor the actual computations of these values were made with Chaney's Oblique Ascension Table in the manner given in Rule 1 and 2, Chapter III. Owing to errors which some times attend the interpolative method, it is possible some of these values may err from 1' to 3'. This, however, is of little moment save where precise directing is involved. Those inclined to check this column by trigonometry may do so by resorting to the usual formula given on pages 211-212 of Chaney's **Primer**, or pages 260-261 of Pearce's text. The few stars in this list having declinations above 60° were so computed. Any appreciable error in the column, due to interpolation, should pertain most to stars of high declinations.

Column 7 needs no explanation other than may be found in the explanation of column 5, except that of course the corrections in 7 apply to column 6.

Column 8 is self-explanatory, save that it may not be superfluous to again remind the student to apply the proper value from Table I when the corresponding **geographic** latitude of the star is desired for location determinations. As example,

the geographic latitude of No. 60 for 1900 would be

20°37S Table II

+7'.5 Table I

20°44".5S

While the influences of the variable stars, like all others, are particularly marked in the latitudes in which they daily circle at a given epoch, they may be considered in a general way in any nativity in other latitudes, though their electromagnetic coupling is weakened in proportion to the latitudinal orb between the place and the star.

Column 9 gives the change in declination over 10-year per periods Reverse signs before 1900. Thus the declination of No. 60 for 1800 becomes

$$20^{\circ} \ 37' + \frac{3'3 \times 100}{10} = 21^{\circ} 10' \text{S}.$$

It would be beyond the scope of this work to cite the rather complex data relative to the **periods** of variability. For this the reader is referred to standard astronomical texts. A helpful discussion for the beginner will be found in Chapter II, Part III, of Newcomb and Holden's **Astronomy.**

It is possible the periods of variability should be considered astrologically as some choose to consider the duration of eclipse effects-an hour for a year. This is not advocated by the author and is mentioned only as a cautious suggestion, as the period of many variables is long; in some cases far too long for their effects to be easily brought to the observation of a single generation, if the ancient eclipse rule is applied to them. The period of ° **Ceti** (No. 530) is 333 days; while the period of Algol (No. 708) is but 2.86 days; No. 3491 is 436 days; No. 4373 is 88 days. The periods of more than half the known

variable stars are between 250 and 450 days; but some few have periods extending into years.

By way of verification of the influence of variable stars, space imposes a limitation of one striking example. That of Napoleon, born August 15, 1769 ¹.

In this nativity we find Neptune 7°Vi near Mars 12°Vi, and both elevated to the east of the zenith, as was the case in the ex-Kaiser's nativity whose date is beyond dispute. The parallelism of their aims was sufficiently close to leave no reasonable doubt that 1769 was the year of Napoleon's birth.

From Table II we find the mundo longitude of the variable No. 2871, for 1769, to be 7°20'Vi, conjunction with his Neptune. This star varies over six magnitudes over a period of seventy years from maximum to maximum or thirty-five years from maximum to minimum, or vice versa. The variable No. 2917, in 1769, was in mundo longitude 10°10'Vi, conjunction with his Mars.

It has a variability of one-half magnitude. Hence the major fluctuation of his great dream and confidence (Neptune), the variable augmentation and diminution of his military generalship and conquests (Mars), and their relation to his career (zenith).

Moreover, it is seen in Table II that both these stars circle nadir (destructive aims) to Russia, as their declinations are between 59° and 60° south, true X, Fig. 1, positions in relalation to Russia ². Consequently, his notoriously successful military conquest of Europe was dimmed by his disastrous drive for St. Petersburg, as above indicated. His confidence (Neptune), subjected to the **six-magnitude** variablity of No. 2871, dimmed with the abandonment (Neptune) of his dream to conquer (Mars) the high latitude of the Czar, and these dimming stars led on to Waterloo. There in the north bounds

¹ Some historians and a few poorly informed astrologers who insist he must have had Saturn on the zenith, dispute this date.

² St. Petersburg is in 59°57' North.

of his western luster and fading we find No. 5017, with a variability of **eight** magnitudes, circling in 50° north latitude, over North France and South Netherlands; this star being in mundo conjunction with his Moon in its opposition to his Saturn. His Saturn in 26°Can is seen to be in mundo conjunction with No. 2059 and No. 2119, with variabilities of about one magnitude each, and these stars circle nadir to France, near the opposition to Paris. His Sun in 23°Leo was zodiacal conjunction with No. 2627, with a variability of five magnitudes, and in mundo conjunction with No. 2628, which circles nadir to North Russia.

It is thus seen that most of his planets were in configuration with **variable** stars, and most of these of the maximum **range** in luster.

To complete the picture we may compute from the catalogue o. 2873, No. 2810 and No. 2836 and find them all conjunction with his Neptune and circling the latitudinal zenith of St. Helena, closing the drama with his banishment (Neptune) thereto. These three stars, though not variables, are in the constellation Hydra, to which the early astrologers assigned the nature of Venus and Saturn. There the ultimately victor ous powers left this dreamer (Neptune) of conquests (Mars) to a lonely (Saturn) ease (Venus).

No better single example could be given to show how a complete cosmic alphabet, and the simple mathematical resolution of intersecting planetary and stellar electromagnetic fields, spell out in this manner the records of history and the places of its enactment.

Truly "The Moving Finger writes; and, having writ,

Moves on ..."

			TAI	BLE	II			
		VAI	RIABLE ST	ARS-	Epoch 190	0		
STAR No.	MAG.	RIGHT	LONG R. A.	CHANGE IN +	Long Zob.	CHANGE IN +	DECLINATION OR GEO LAT.	CHANGE IN TEN YEARS
	150 (2)	0 /	0 /	1 021	0 /	(0)	0 /	.'.
60	5.2-6.3		4.33 7	8.3	25.15 €	6.9	20.375	-3.3
135	2 2-2.8	8.42	9.28 9	9.2	6.24 8	5.6	55.59N	+3.3
323	5.7—8. 2.5—10.	20.35	22.16 Y 5.53 &	7.4	3.53 T 0.07 S	7.3	33.04S 3.26S	-3.1 -2.7
530 698	3.4-4.2	44.41	17.10 8	9.6	23.30 8	7.7	38.27N	-2.7 +2.4
708	2.2-3.7	45.25	17.53 8	9.7	24.468	7.7	40.34N	+2.3
920	3.4—4.2	58.47	0.5611	7.9	29.148	8.0	12.12N	+1.7
1101	56.7	68.54	10.30 Ⅲ	1.6	15.24 γ	2.3	62.16S	-1.2
1187	34.5	73.42	14.59 ∏	10.0	17.27 Ⅱ	8.3	43.40N	+0.9
1468	1.—1.5	87.24	27.37 II	7.4	27.19 [8.4	7.23N	+0.2
1629	5.—6.	95.32	5.05 %	8.9	4.485	8.5	30.33N	-0.3
1706	4.9—5.4	98.54	8.10%	7.6	9.00%	8.4	9.59N	-0.5
1815	3.6-4.5	104.33	13.24%	8.3	13.46%	8.4	20.43N	-0.8
1875	3.4-6.2	107.37	16.14%	4.3	2.033	7.6	44.298	+1.0
1909	5.9-6.7	108.44	17.17%	6.4	23.06%	8.1	16.128	+1.1
1970	5.9—8.	111.30	19.525	6.7	25.005	8.1	9.348	+1.2
2059	7.2—9.	115.57	24.04%	4.1	18.460	5.1	47.528	+1.5
2119	4.4-5.2	118.50	26.485	4.1	24.218	6.3	48.585	+1.6
2574	4.3—10.	142.26	20.010	3.8	14.10=	2.6	62.215	+2.6
2627	5.2-10.	145.33	23.130	8.3	23.515	7.6	11.54N	-2.8
2628	3.75.2	145.37	23.170	4.2	15.41∽	2.6	62.03S	+2.8
2710	69.2	151.33	29.260	5.0	17.51 △	3.2	61.048	+2.9
2827	4.56.2	158.09	6.23mg	7.9	14.54mg	7.1	12.525	+3.1
2871	17.4	160.18	8.41mg	6.2	20.47-	4.1	59.10S	+3.1
2917	6.26.9		11.22mg	5.5	23.38-	4.0	59.598	+3.2

TABLE II VARIABLE STARS-Epoch 1900 DECLINATION OR GEO LAT. CHANGE IN RIGHT CHANGE IN STAR No. LONG ZOD. LONG R. A. 3491 | 4.5-10. | 201.04 | 22.47-8.7 | 28.00 -7.2 | 22.46S +3.111.1 24.03 m +2.83691 6.-10. 212.20 4.37m 6.7 59.27S 8.07S +2.4 3825 223.55 16.23 m 8.0 | 13.53 m 7.6 4017 6.--13. | 236.07 28.22 ₪ 6.0 14.22 € 7.9 28.28N -1.94.7 - 6.246.20 8.06 # 20.05 m 7.6 42.06N -1.34201 4.6 4373 3.1---3.9 257.31 18.31 1 14.30N -0.714.44 1 6.3 8.0 258.25 33.12N 19.21 t 12.30 # 8.3 -0.74388 4.6-5.4 5.1 265.19 25.42 1 25.52 # 5.6 27.48S +0.34493 4.--6. 5.8 29.42 1 29.41 1 8.8 8.4 29.35S +0.04.8 - 5.8269.10 4564 5.8-6.6 3.401/9 8.3 18.54S -0.2273.53 4632 3.33V9 8.1 5.-5.7 275.31 5.0479 6.00V3 7.2 0.08N +0.34667 7.1 4759 280.32 9.4179 7.4 10.5913 8.4 5.498 -0.63.4-4.5 | 281.36 10.4019 5.2 17.30VS 33.15N +0.74776 8.1 12.011/9 23.52VS 7.8 43.49N +0.84814 4.-4.7 283.04 4.2 285.34 14.20V3 18.21V3 8.3 10.55N +0.94864 5 .-- 5.5 49.58N 21.4773 17.25 VS 6.5 +1.33.8 5017 5.9-14. 293.32 8.32.00 24.45 VS 7.7 32.40N +1.5296.41 5.5 5067 4. - 13.57.7 29.03V3 0.45N +1.58.6 5071 3.5-4.7 296.51 24.55 VS 25.531/9 3.59.00 16.22N 5098 5.6-6.4 297.52 6.5 7.8 +1.626.55 5.5-6. 310.48 8.23.00 5.9 7.0 34.00N +2.25345 27.53N 9.22.2 6.3 24.38.2 7.1 +2.25370 | 5.5-6.5 | 311.48 22.46.00 325.07 4.7 8.22 T 3.6 | 58.19N +2.75593 i 5.8 16.14 9 4.1 | 57.54N +3.05807 | 3.7-4.9 | 4.30 € 336.22 6.7 27.32N +3.25940 || 2.2—2.7 || 344.44 || 13.26 € 7.8 28.00 € 6.8 | 18.45 ¥ | 7.0 | 15.50S | -3.3 6091 || 6.—11. || 354.40 || 24.11 €

CHAPTER VIII BINARY STARS

Table III lists the astrologically useful data of most of the best-known binary stars whose periods of revolution are relatively short and have been fairly well determined.

It may be useful to explain for the beginner that a binary system in its simplest form consists of two stars revolving about each other; that is, about a common center of gravity the position of which depends upon their relative masses. It will serve to think of them as whirling dumb-bells. To the eye they appear as a single star; telescopically they are seen as a double star.

Some pairs are merely optically double-in the same line of light, but one far beyond the other. These are not binaries. Other pairs are physically double, and in accord with New ton's law it is thought that they are binaries; but their periods of revolution, if any, are too slow to have been detected in the relatively short time the telescope has served observers. Still other pairs are known to have a **slow** ¹ revolution; but their orbits and times have not been reliably determined. All these have been omitted from the table, since the astrological nature of such slow binaries cannot be determined by observation in a single generation. Those who desire to extend the list will find them given in the Boss work, and the calculation will be greatly simplified by using the rules given in (3) and (4), Chapter III.

Table III takes the form of Table II, and the explanations given for the various columns of Table II apply also to Table

¹ Thousands of years.

III, except that the magnitudes of the binaries have been omitted from the latter table as of somewhat less moment, as they are quite constant. When they are required consult the catalogue. A hint as to how their relative magnitudes are to be considered will be given presently.

The last column of the table gives the period of revolution in years; though in some cases different authorities differ as to the exact period. R designates the revolution to be rapid; the exact period being unknown.

Now what purpose does such a table serve, or what is the astrological significance of planetary conjunctions with a binary?

As in the case of variable stars the answer is electro-magnetically simple. When two electrically charged bodies revolve about each other they set up a **rotating electric field**. When the path of such a field, extended across our solar system, is intersected by the field of a planet as shown by C and D, Fig. 2, the superimposed planetary frequency is transmitted by this revolving wave and the planet expresses as a "revolutionary". If the coupling is zodiacal there is either an inclination or disinclination to revolution in personal or world affairs, depending in part on whether the planet is most related to its ascending or descending node and upon other factors whose presentation is beyond the scope of the present treatise ¹: If the coupl-

¹ The general rule is that a planet ecliptically ascending or elevating in the oblique sphere of an astrological figure, denotes effects by **rising inclinations**. Descending, they denote **declining** inclinations; that is **set disinclinations**-from whence the descendant derives its import of "opposition". As the symbolic ascendant of partners or competitors, however, the descendant shows **their** inclinations, as balanced against those of the ascendant or native. But in mundane or state astrology the **horary** placement of a planet is subordinate to consideration of its relation to the ascend, ing and descending nodes of the Moon and planets and to the ascending and descending angles of the country or place as computed from **the Earth in the Heavens**. Though Lincoln's binary coupled planets were elevating in his horary nativity, they were mostly descending in the **precessional** figure of Eastern America, and his rising Saturn and Neptune were close to the descending node of Uranus. Though personally not without much sympathy for the Southern cause, he opposed the revolution in the cause of unity as a national policy.

ing is mundo or right ascensional it excites to the "righteous evolution" or the right reform.

If the binaries configure the planetary positions in eclipse figures, or are conjunction with a ponderous planet when it is geocentrically stationary, it excites to riots, strikes or political revolutions within the "rule" of the planet configuring them, and particularly in those latitudes in which the binary is zenith or nadir. Another effect to be investigated as tied in with the binaries when expressing planetary afflictions, is tornadoes; also with reference to earthquakes, the **gyrating** shock due to a **twisting** of the electrical axes in the earth crystal as it strains or fractures from self—oscillation ¹ when subjected to excessive eddy currents under such phased relations of the planets as the conjunction and opposition. The perpendicular or straight lateral shock, however, does not necessarily involve the binary stars.

Mercury conjunction with a binary excites to revolutionary writers or speakers; Venus, to social revolutionaries or reformers of art, etc.; Mars, to revolutionary wars or generalship; Jupiter, to civic or legal reforms. And so on. If in a nativity a planet in the zenith is conjunction with a binary it tends to make business or profession revolve around two vocations whose relative importance in the life will depend upon the relative masses and magnitudes of the binary pair. For this reason the magnitudes of the two stars should receive attention.

Now all this may seem like mere abstract theory, but excepting earthquakes and tornadoes, on which no adequate data has been accumulated and analysed, there is at hand a very conclusive mass of verification, were it possible to so enlarge this work to encompass it. Therefore the binary stars afford an extensive field for investigation along these lines, and to facili-

¹ See researches of Cady, Gibbs, Taylor and others relative to the electrical properties of crystals.

tate their proper study in relation to revolutions, etc., Table IV is appended, relisting these stars in their progressive latitudinal order and noting against the star some of the countries their latitudes co-ordinate. To correct their geographic latitudes to earlier or later epochs than 1900 apply the correctives in column 8 of Table III.

Now to cite, a very few verifications.

The Declaration of Independence, July 4, 1776, officially set forth the aims of the Revolution which began in 1775. On that date the Sun was conjunction with No. 1732 (Sirius). This binary circles in south latitude, but it is mundo conjunction with other stars in the general latitude of Washington and Philadelphia. Binary No. 1083 was conjunction with Uranus, itself the revolutionary of our planet family 1, and this star circles over England, as may be seen in the table ². Binary No. 3927 circles in the latitude of Virginia and was mundo conjunction with George Washington's Mars in 23°Sc; hence his connection with a revolutionary (binary) war (Mars). Binary No. 4246 circles over the southern states and was mundo ("righteously") conjunction with his zenith Uranus in 10°Sag.

At the opening of the Revolution in 1861, Uranus was again on the ascendant of Eastern America and conjunction with No. 1083. In this connection it may be useful to observe that one of the stars forming the binary No. 1083 is itself a binary (has a companion star in revolution about it). Thus just one Uranus cycle after the colony revolted from the mother country it had a revolution of its own. The Sun was in 22°Ar as the war began, in mundo opposition to No. 3513.

¹ Exactly conjunction with the London 11th, conjunction Boston's ascendant, and close trine to the Philadelphia M. C., as shown in The Earth in the **Heavens**, Chapter V, Example 7.

² Stars No. 592, 1082, 1108, and 1127 were also conjunction with Uranus and relate to Philadelphia and the south half of England. See also remarks on Aldebaran in Chapter IX.

This binary, as also No. 3 518 and No. 3526, was mundo ("righteously") conjunction with Lincoln's Mars in 25°Li: No. 3 518 circling the latitude of Virginia and points west. Lincoln's rising Saturn and Neptune (unity and sedition) were mundo conjunction with No. 4138 and ecliptic conjunction with No. 4203, the former circling over the southern states. His Uranus was close mundo conjunction with No. 3735 ¹. His Sun was close mundo conjunction with No. 5592 and his Mercury likewise configured with No. 5945. These right ascensional rays of most of his planets to binaries kept him to the right throughout the revolution. However, we find his Venus was zodiacal conjunction with No. 6172 and thus he was **inclined** to Peace (Venus).

The beginner will find the nativity of Nicholas II an inter^esting study of binary stars, as with the exception of the Sun and Mercury all the other members of our solar system were in conjunction with binary stars. Let him also check up on the Mexican 2, French, Indian and Chinese revolutions, with reference to the binaries appearing against those countries in Table IV, before. he passes lightly over this section of the work.

As a concluding example, the Boer Rebellion was launched on October 11-12, 1899. At that time Mars was conjunction with Jupiter in 14°Sc ³, zodiacal conjunction with No. 3998, which we may see from Table IV circles the goedetic **nadir** of the Transvaal, Johannesburg being 26° 13'S and the star at that epoch 26°46'N. The Sun followed to conjunction with this star in early November 1899 and the siege of Ladysmith resulted. Kruger was born with the Sun 16°Li, in square to

¹ Perhaps the brightest binary in the heavens; magnitudes 0.0 and 1.5

² Saturn was conjunction No. 4559 at the opening of the Mexican rebellion in March, 1929, and Uranus applying conjunction No. 127, nadir to Mexico.

³ In square to the ascendants of Bloemfontein, Kimberley, Pretoria, Ladysmith and Peitermaritzburg-See The Earth in the Heavens, Table I.

Uranus, and the Sun transited 17°Li on the opening day of the revolution. These points are seen to "be respectively mundo and zodiacal conjunction with binaries No. 3412 and No. 3526. Kruger's Uranus was conjunction with No. 4386 which we note circled in 35°02'S, zenith to The Cape. Saturn was transiting mundo conjunction with this binary when the rebellion began, and zodiacal opposite (opposing) No. 1083, which we noted in connection with the American revolt to be circling over central England. If we turn to the nativity of Queen Victoria, we find her Moon was mundo conjunction with this last-cited star, and that her Saturn in 29°Pi was mundo conjunction with No. 6172, circling in 26°16'N at the epoch of her birth (1819), thus geodetic nadir to Johannesburg. It proved to be a "right (mundo) tedious chore (Saturn)" to suppress (Saturn) the rebellion (binary). Other binary configurations with Her Majesty's planets will be found to spell out the rest of the story of the revolution.

These few examples should suffice to point the way to synthesis in utilizing the fundamental laws outlined in this text. The basic principles are few and it will by now be seen they o not break down when put to test with reasonable thought.

The astrological student is to see that the configurations of planets with binary stars may be viewed as somewhat the same in effect as the influence of the planet Uranus.

		BINAF		BLE I		1900		Vascanii (j. r.
STAR	RIGHT	LONG R. A.	CHANGE +	Long Zob.	CHANGE +	DECLINATION OR GEO. LAT.	CHANGE IN 10 YEARS	PERIOD IN YEARS
,	0.15	0 /	8.5	2.33 8	5.01	57.53N	+3.3	105
	8.03	0.16 ም	8.4	26.32 €	7.0	25.198	-3.3	R
168	10.45	11.42 %	9.8		5.9	57.17N	+3.2	222
197	12.24		8.6		7.1	23.05N	+3.1	140
376	55 CARROLL CAR 1 1 2	25.53 9	C. C	15.42 €	4.3	56.428	-3.0	117
435	The second second	29.46 %	8.1	26.10 ℃	7.4	1.21N	+3.0	150
469	29.26	1.368	9.5	12.50 8	7.1	41.51N	+2.9	1.00
654	41.51	14.19 8	9.4	.21.048	7.5	37.56N	+2.5	30
749	48.19		7.5	15.278	7.8			R
1083	1 68.00	9.4011	11.0	14.51Ⅲ	8.2	53.16N	100 00000000000000000000000000000000000	? ?
1732	LANGUAGE CONTRACTOR OF THE PARTY OF THE PART	9.215	6.1	12.425	8.1	16.35S	+0.8	44
2075		24.515	6.6	1.580	7.8		+1.6	23
2168	ii 121.37	29.27%	8.2	29.575	7.9	17.57N	-1.8	59
2354	II 130.22	1 7.57 R	7.8	10.590	7.8	6.47N	-2.2	15
2538	1 140.46	18.200	8.2	20.10sc		9.30N	-2.6	
2637	146.19	1 24.00 Q	10.6		6.9		-2.8	
2650	146.53	1 24.35 \$		1.53mg		7.38S	+2.8	100
2984	168.13	17.11mg		5.57mg		32.05N	-3.3	60
3033	171.40	20.56mg		∥ 18.48Ω		61.38N		66
3302	189.00	9.48-	9.0		6.2	48.25S		88 194
3307	189.09	∥ 9.58=>		8.45-			$+3.3 \\ -3.2$	26
3412	196.17	17.40-	7.8	7.32-		18.03N	+3.3	11 100
3513	202.36			19.22m		61.11S	+3.3 -3.1	R 200
3518	203.15	25.06∞	7.0	4.00-≏	6.5	36.48N	3.1	11 200

TABLE III BINARY STARS-Epoch 1900 + STAR 2 0 / 0 / 0 / 0 / 3526 || 203,40 || 25,32 -7.9 11 17.30-7.1 | 11.15N -3.1 || 30 3692 | 214.37 | 6.58m -2.8 || R 7.5 || 29.08 == 7.2 8.54N 3735 || 218 12 || 10.37 m 10.3 || 28.14 m 6.1 4 60.25S +2.5 | 81 3798 || 221.42 || 14.10 m 6.8 | 2.08m 7.1 || 19.31N -2.5 || 148 3846 || 225.07 || 17.35 m 4.9 || 16.21= 5.5 | 48.03N -2.2 | 40 3923 || 229.46 || 22.11 m 6.1 | 5.41 m 7.1 | 30.39N -2.4 | 261 3927 || 230.11 || 22.36m 5.6 | 1.47m 6.8 | 37.42N -2.1 || 250 3998 || 234.38 || 26.56m 6.1 | 13.26m 7.4 | 26.37N -1.9 | 80 4082 | 239.43 | 1.49 t 11.06S +1.7 | 45 7.8 | 29.54m 8.1 || 4138 | 242.44 | 4.42 # -1.5 || 370 34.07N 5.3 | 19.56m 7.5 | 4203 | 246.21 | 8.07 # 2.12N -1.3 || 234 7.1 | 4.04 # 8.0 | 4246 || 249.23 || 10.58 # 5.3 | 0.04 t 7.7 | 31.47N -1.1 || 34 | 258.02 | 19.00 # 9.4 | 19.59 # 34.53S +0.7 | 46 4386 8.6 | 4433 || 261.19 || 22.01 # 7.1 || 20.37 # 8.4 | 0.598 +0.5 || 46 4559 | 269.24 | 29.27 # 7.5 | 29.33 1 8.4 | 8.115 +0.0 || 200 || 270.06 || 0.061/3 7.0 || 0.071/3 7.0 | 2.31N -0.0 || 88 4571 || 273.12 || 2.56V9 8.0 | 3.031/3 8.3 | 18.395 -0.2 || R 4621 || 284.04 || 12.57v9 8.8 | 12.15 V9 | 8.3 || 30.01S -0.8 | 21 4832 9.4 | 12.131/3 -0.8 || 200 || 284.55 || 13.44V3 8.2 | 37.12S 4851 14.15N || 308.13 || 5.50.22 6.9 | 14.58.2 +2.0 || 27 5291 7.7 | +2.9 | 452 5433 || 315.36 || 13.08.22 6.7 || 5.22 € 38.15N 7.6 | 25.11N +2.7 || 11 || 325.01 || 22.40.27 7.0 || 7.33 € 7.0 [5592 7.1 | 5945 || 344.59 || 13.42 € 8.4 || 13.00 € 8.145 -3.2 || R +3.2 || 26 6172 || 359.14 || 29.10 € 8.5 | 10.35 9 7.0 | 26.33N

TABLE IV BINARY STARS-EPOCH 1900

Star No.	Geographic Latitude	Countries
3307	0°54'S	Equador, Sumatra, Borneo, Belgian Congo
4433	0°59'S	Equador, Sumatra, Borneo, Belgian Congo
749	1°18'S	Equador, Sumatra, Borneo, Belgian Congo
435	1°21'S	Equador, Sumatra, Borneo, Belgian Congo
4203	2°13'N	Equador, Sumatra, Borneo, Belgian Congo
4571	2°32'N	Equador, Sumatra, Borneo, Belgian Congo
2354	6°49'N	Guianas, Columbia, Venezuela
2650	7°41'S	Guianas, Columbia, Venezuela
4559	8°14'S	Guianas, Columbia, Venezuela
5945	8°17'S	Guianas, Columbia, Venezuela
3642	8°58'N	Panama, Venezuela, Mindano
2538	9°34'N	Peru, Costa Rica, Venezuela, So. India
4082	11° 10'S	Peru, Costa Rica, So. India
3526	11°19'N	Peru, Costa Rica
2075	13°43'S	Peru, Nicaragua, Honduras, Salvador
5291	14°20'N	Philippines, Nicaragua, Honduras, Salvador
1732	16°41'S	Mexico, Bolivia
2168	18°04'N	Mexico, Porto Rico, Hawaii, India
3412	18°10'N	Mexico, Porto Rico, Hawaii, India
4621	18°46'S	Mexico, Porto Rico, Hawaii, India
3798	19°38'N	Mexico, Cuba, Hayti, Hawaii, India
197	23°13'N	Mexico, Cuba, Brazil, Paraguay, India
5592	25°20'N	Mexico, Brazil, Paraguay, India
127	25°28'N	Mexico, Brazil, Bahama.
6172	26°42'N	Transvaal, Mexico, India
3998	26°46'N	Transvaal, Mexico, India
4832	30°11'S	Transvaal, Mexico Australia.
3923	30°50'N	Transvaal, Mexico, Australia

TABLE 1V BINARY STARS-EPOCH 1900

Star No.	Geographic Latitude	Countries
4246	31°57'N	Chili, Egypt, Australia
2984	32°15'N	Chili, Egypt, Persia, China, Japan, S. U.S.
4138	34°18'N	Chili, Egypt, Persia, China, Japan, S. U.S.
4386	35°04'S	Argentina, Uruguay, China, Japan, S. U.S.
3518	36°59'N	Argentina, Australia, China, Japan, U. S.
4851	37°23'S	Argentina, Australia, China, Japan, U. S.
3927	37°53'N	Argentina, Australia, China, Japan, Cen. U. S.
654	38°07'N	Argentina, Australia, China, Japan, Cen. U. S.
5433	38°26'N	Argentina, Greece, China, Japan, Cen. U. S.
469	42°03'N	Spain, Portugal, Italy, Bulgaria, Turkey, Albania, China, Cen. U. S.
3 846	48°15'N	France, Austria, Slovakia, Ukraine, So.
		Russia, No. China, No. U. S.
3302	48°25'S	France, Austria, Ukraine, So Russia, No. China.
1083	53°27'N	Ireland, England, Germany, Poland, Cen. Russia, Canada.
2637	54°43'N	Ireland, England, Germany, Poland, Cen. Russia, Canada
376	56°53'S	Scotland, Denmark, Russia, Canada
168	57°28'N	Scotland, Denmark, Russia, Canada
3	58 [°] 04'N	Scotland, Denmark, Russia, Canada
3735	60°35'S	Norway, Sweden, Russia, Canada
3 513	61°21'S	Norway, Sweden, Russia, Canada
3033	61°38'N	Norway, Sweden, Russia, Canada

CHAPTER IX

DOUBLE STARS, CLUSTERS, NEBULAE AND BRIGHT STARS

No comprehensive astrological investigation has been made of many of the stars belonging to the first three classifications, and they are too numerous to list.

It is thought, however, they may be viewed as inducing multiple reactions and that their natures have a broad parallelism in the planet Neptune. Versatility, dual interests, double lives, multiple births, double vision, compound astigmatism -these are a few effects fairly well traced to planetary configurations with the brightest double stars.

As to clusters and nebulae, there is considerable evidence available to show they tie in with planets in cases of cataract of the eye and blindness, and this conclusion was reached by the early astrologers. A few belonging to these groups appear in ancient astrological star lists handed down to the present time.

The easy method for computing star longitudes as given in Chapter III, will admit of the student readily investigating any of these groups as his needs or leaning may dictate; but that the student may have a ready reference of the brightest stars, without recourse to a star catalogue, Chaney's **Primer**, or trigonometry, Table V is here appended, listing the 270 brightest stars given in the Boss work. This list contains the single, double, binary and variable stars to about 3.5 magnitude, exclusive of a very few beyond the arctic circles: Nebulae and clusters are not included, save Nos. 2325 and 4292.

The table takes the form of Table II, Chapter VIII. Thus column 4 gives the C, Fig. 2 positions, and column 6 the D, Fig. 2 positions, for the epoch 1900.

For other epochs apply the correctives in columns 5, 7, 9 as explained of Table II. Apply the proper values from Table I to column 8 to find the **geographic** latitude of these stars, the same as in Table II.

The notations in column 1 have the following meanings:

V-variable: B-binary: D--double: C-cluster.

The following reference will identify some of the principal stars of ancient astrological lists:

No.	Star	No.	Star
10	Alpheratz	1732	Sirius
27	Algenib	1979	Castor
147	Diphda	2008	Procyon
259	Merach	2031	Pollux
325	Polaris	2698	Regulus
363	Achernar	3101	Denebola
428	Sheritan	3237	Acrux
477	El Nath	3302 (Caphir
530	Mira	3383	Vendemiatrix
691	Menkar	3474	Mizar
708	Algol	3476	Spica
869	Alcyone	3615	Agena
107	Aldebaran	3662	Arcturus
124	Capella	3787	So. Scales
125	Rigel	4193	Antares
130	Bellatrix	4722	Vega
130	Bull's N. Horn	5062	Altair
140	Phact	5320	a Cygni
146	Betelguese	5676	El Melik
162	Canopus	5916	Fomalhaut
169	Alhena	5944	Markab

The student should not attempt to make Table V do duty for the thousands of stars to the 7th magnitude listed in the Boss catalogue. A star of the 4th, 5th or 6th magnitude, circling zenith or nadir to a town, has far more effect thereon, or upon persons therein whose planets ray the star, than have the brightest stars at places outside their direct radial electric fields. The exceptions are in cases of national or international characters, or where a bright star is conjunction with a lesser one and the latter in the latitude of the place; it then translates the influence of the brighter star thereto regardless of the latitude of the brighter star. Thus Aldebaran circles in the tropics, but reference to the Boss work will show it is in very close R. A. conjunction with a 4.4 magnitude star circling over lower New England, and R.A. conjunction with two stars of the 3rd and 5th magnitudes circling over England. How this works out is well illustrated by the fact that Uranus, the revolutionist, was zodiacal conjunction with Aldebaran in 1776. It must not be overlooked that the Revolution arose largely out of the West Indies trade situation, and that Aldebaran circles their latitudinal zenith. Thus it "transformed" or electro-magnetically coupled its issues there to England and New England through these other lesser stars-No. 1060, 1061, 1074, 1082 and 1083, all of smaller magnitudes than Table V can include in this small text of first principles.

However, a study of geographic latitudes will reveal that No. 27 affects Manila (Mars mundo conjunction therewith on the day of the Battle of Manila Bay); No. 314, 3218 and 3615 center over Petrograd; No. 468, 3565 and 3724 are among those influencing Chicago; No. 680, 3836, 3950 and 5393 are a few of the fifty-odd stars influencing New York and the Stock Exchange fluctuations; No. 482, 1401, 3887 and 4272 are among those relating to Los Angeles and other towns in the same belt; No. 5048 and 5320 notably relate to Minneapolis and St. Paul, while others in the list will be seen to

HOW AND THEY INFLUENCE

85

couple with Berlin, London, Paris, Washington, San Francisco, etc.

Each star in a given geographic latitude particularly influences different towns in that latitude, according as they longitudinally couple with it by the ingress and eclipse computations as revealed in The Earth in the Heavens. Much work remains to be done in assigning individual stars to individual cities; but the researcher will find this task remarkably facilitated by applying the principles and rules of these texts. Worldwide organization is needed to comprehensively apply these basic equations to economic cycles, war prevention, flood and earthquake warning, weather forecasts, and so on. No one computer can make all the necessary calculations from day to day for more than an extremely limited area. If he attempts too much he will inevitably overlook innumerable inductive couplings that should be considered. Let none think predictions are easy because the basic calculations are relatively simple, though almost endless.

TABLE V BRIGHT STARS—Epoch 1900

STAR No.	MAG.	RIGHT	E. A.	CHANGE IN +	Zob.	CHANGE IN +	DECLINATION OR GEO.LAT.	CHANGE IN
10	2.0	0.48	0.52 m	8.4	12.55 T	6.7	28.32N	+3.3
12	2.2	0.58	1.03 T	8.6	3.45 8	5.2	58.36N	+3.3
27	2.9	2.01	2.12 %	8.4	7.46 °	7.0	14.38N	+3.3
78	2.3	5.20	5.49 m	8.1	14.04 €	6.1	42.51S	-3.3
132	3.4	8.19	9.03 %	8.7	20.167	6.8		+3.3
V135	2.2	8.42	9.28 7	9.2	6.24 8	5.6	55.59N	+3.3
147	2.0	9.38	10.29 %	8.2	1.10 %	6.9	18.32S	-3.3
D199	2.0	12.40	13.46 T	9.7	12.34 8	5.5	60.11N	+3.3
D245	3.3	15.24	16.43 T	7.2	19.00 €	5.6	47.15S	-3.3
259	2.1	16.02	17.24 m	9.0	29.01 %	6.8	35.05N	+3.2
314	2.6	19.49	21.279	10.3	16.32 8	5.9	59.43N	+3.1
325	1.9	20.38	22.19 m	67.6	27.10Ⅱ	1	88.46N	+3.1
329	3.3	A CONTRACTOR OF THE PARTY OF TH	22.42 7	6.9	26.43 €	5.7	43.50S	-3.1
363	0.3	23.30	25.22 T	5.9	13.58€	4.1	57.41S	-3.1
391	3.5	24.51	26.48 9	7.3	16.24 9	6.7	16.288	-3.2
419	3.4	26.48	28.50 ℃	11.2	23.22 8	6.0	63.11N	+3.0
428	2.7	27.17	29.21 9	8.7	2.34 8	9.3	20.19N	+3.0
458	2.9	28.54	1.02 8	4.9	10.39€	3.0	62.03S	-2.9
D468	2.1	29.26	1.368	9.6	12.508	7.1	41.51N	+2.9
477	2.0	30.23	2.35 8	7.1	6.14 8	7.3	22.59N	+2.9
482	3.0	30.54	3.07 8	9.2	10.58 8	7.3	34.31N	+2.8
V530		33.34	5.538	7.6	0.07 8	7.3	3.268	-2.7
D622	3.5	39.32	11.588	7.9	8.02 8	7.5	2.48N	+2.5
643	3.5	41.01	13.28 8	8.8	16.48 원	7.6	26.51N	+2.5
D680	3.5	43.37	16.05 8	5.7	22.59 T	6.3	40.42S	-2.4
691	2.7	44.16	16.44 8	7.8	12.55 8	7.7	3.42N	+2.4
694	3.0	44.23	16.518	11.0	28.38 8	7.4	53.07N	+2.4
V698	3.4	44.41	17.10 8	9.6	23.30 %	7.7	38.27N	+2.4
V708	2.2	45.25	17.53 8	9.7	24.468	7.7	40.34N	+2.3
772	1.7	49.18	21.43 8	10.5	0.4211	7.7	49.30N	+2.2
838	3.0	53.57	26.168	10.3	3.24Ⅱ	7.9	47.28N	+2.0
869	2.8	55.23	27.39 8	8.8	28.368	8.0	23.48N	+1.9
D894	2.8	56.57	29.108	9.1	1.43 ∏	8.0	31.35N	+1.8
D910	2.9	57.47	29.588	9.7	4.16Ⅱ	7.9	39.43N	+1.8
915	3.1	58.20	0.3011	6.8	22.278	7.9	13.48S	-1.7
994	3.3	63.17		8.8	6.04 ℃	2.0	62.438	-1.5
D1046	3.5	65.44	7.32 ∏	8.1	6.33 Ⅱ	8.3	15.39N	+1.4
1077	0.9	67.32	9.1411	8.1	8.2311	8.2	16.18N	+1.2

86

	1900
>	-Enoch
TABLEV	TARS
H	SRIGHT STARS
	3R

-	CHANGE IN TEN YEARS		+	111	0.1+ N	-	60+ 7	0.5	080		+07	-0.	11100	9.0+ N	-	-		-	1	-0.0	+		1	-	10.7 N	-	_	9	7	+	1	S +0.5	9	1	100	+0	10	+	9	7
97.00	DECLINATION OR GEO LAT	1	33.15N	0.4/1	33.001	43.40]	41.06	22 305	\$ 135	16 109	45 54	8.19	6.161	28.31]	20.501	0.22]	17.545	9.52	5.598	1.16	21.05	2.00	34.08	9.42	7.23	44.70	30.14	27 24	17 54	52.38	16.29	43.09S	25.14	13.00	16.35	4ml	0	28.50	60	·o
1	CHANGE IN TEARS		2.7	8.3	2.5	8.3	00	8 2	000	0	00	00	60	633	8.3	8.2	60.00	8.3	8.3	8.3	8.3	8.3	90	8.3	4.0	000	60	2.0	8.4	80	8.4	4.0	4.6	8.3	8.2	4.2	7.	8.0	8.1	8.0
-	Zob.	0	15.14II	0.30	15.14日	17.2711	18.0417	10 3877	13 6477	14 00 11	20.27	15 2577	19 32 17	21.11	21.35 TT	20.5877	22.30TT	22.1917	21.35П	22.0411	23.23II	23.16П	20.45 II	25.00II	27.19П	28.3111	178.3311	25.50	489	13.345	7.42%	15.475	8.3355	9.485	12.425	21.22 R	6.24	9.23	9.37	10
ı	+ enasy way	,	3.0	2.6	9.1	10.0	0.7	2 4	000	200	10.01	2 4	14	20	2.0	7.1	. 19	10	6.3	7.0	8.4	7.0	5.0	9.9	7.4	10.2	2,0	5.5	6.4	5.	0	4.2	8.7	7.8	6.1	1.4	3.4	5.4	5.6	5.7
	Роме В. А.	1	9.38П	4	13.58正	*	04	0	900	9 6	o o	3 00		48	4	22.24	22 4477	23 02 11	23.1417	23.22 □	23.30II	24.25 II	24.30II	26.06II	27.37II	28.13II	28.221	96	9500	4 50 5	7200	7.589	8.41%	9.075	9.21%	50	33	100	13.325	14.495
	Віснт Азскизіон	. 0	67.57	71.06	72.37	73.42	174 57	74.10	75.44	11000	27.10	27.76	70.56	70.50	80 50		3	24	00	1.4	55	53	00	45	47	er, i	21	50	2 4	20	200	10	27	33	=	101.47	101.52	103.40	104.42	106.05
1	MAG.		3.4	3.2	2.8	3.0	3.3	200	90	000	100	000	1 2	2	2.0	200	200		50			1.7		2.1		00 1	5.0	0.0	2.0	9 0		3.5			2.0	**	"	-	-	
-	AATS .ov		-	140	167	187	1204	211	2	-	www.	-	1303	1304	11171	D1110	6.90	1.00		1370	1375	D1398	D1401	1435	V1468	1478	B1482	1001	1000	1603	16001	1702	1717	1725	B1732		1772	D1804	1817	1839

TABLE V BRIGHT STARS—Epoch 1900

1896 2.5 108.24 0.58	AATS ON	MAG.	Мівнт Азскизіон	Love R. A.	CHANGE IN +	LONG.	+ PEASY NOT	DECLINATION OR GEO LAT.	CHANGE IN TEN YEARS
1959 2.5 108.24 16.58 5 5 0 28.55 5 78 36 1934 2.3 110.02 18.305 5 5 5 28.105 7.9 29 110.24 2.9 110.25 18.305 5 5 5 28.105 7.9 29 110.24 2.9 110.20 18.525 7.6 20.495 8.1 8.1 8.2 1972 1.9 112.03 20.235 9.0 18.515 8.1 24 24.25 8.1 1.2 1979 1.9 112.03 20.235 9.0 18.515 8.0 28 20.09 112.03 20.235 9.0 18.515 8.0 28 20.09 112.03 20.235 9.0 18.515 8.0 28 20.09 112.03 20.235 9.0 18.515 8.0 28 20.09 112.03 20.235 9.0 18.515 8.0 28 20.09 112.03 20.235 9.0 18.515 8.0 28 20.09 112.03 20.235 9.0 18.515 8.0 28 20.09 112.03 20.09 2	1 6		0	0	,	0		18	
1934 2.3 110.02 18.3055 5.5 28.105 7.9 29 1944 2.9 110.02 18.5155 7.6 20.4957 8.1 8. 1972 2.9 110.02 18.5255 7.6 20.4957 8.1 8. 1979 2.9 110.03 20.2355 7.6 20.4957 8.1 8.2 32 2008 0.2 113.31 21.4655 7.4 24.2555 8.1 24. 2008 0.2 113.31 21.4655 7.4 24.2555 8.1 24. 2008 0.2 113.31 21.4655 7.4 24.2555 8.1 24. 2008 0.2 113.31 21.4655 7.4 24.2555 8.1 24. 2008 0.2 113.31 21.4655 7.0 92.40 7.5 37. 2008 0.2 113.31 21.4655 7.0 92.40 7.5 37. 2008 0.2 113.31 21.4255 7.0 92.40 7.5 37. 2005 3.4 116.16 24.225 5.0 17.126 7.6 39. 2005 3.4 116.16 24.225 5.0 17.126 7.6 39. 2111 3.5 118.33 26.325 7.0 17.126 7.0 39. 2112 3.6 120.49 28.4155 6.1 10.010. 7.6 39. 212 1.6 121.37 29.2755 4.4 26.010. 6.1 47. 212 1.6 121.37 29.2755 4.4 26.010. 7.6 4.4 5.2 12.28 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2	20		7.8	0.58	2,0	8.55	7.8	9	+1.0
1944 2.9 110.26 18.525 7.6 20.495 8.1 8. 1972 2.9 111.31 19.535 4.5 7.230, 7.1 43. 1972 2.9 111.31 21.465 7.4 7.230, 7.1 43. 1979 1.9 112.03 20.235 4.5 7.24.55 8.1 24. 20.098 0.2 111.31 21.465 7.4 24.255 8.1 24. 20.098 0.2 111.31 21.465 7.4 24.255 8.1 24. 20.09 3.5 114.36 22.475 8.5 22.165 8.1 24. 20.09 3.5 114.36 22.475 8.5 22.165 8.1 24. 20.03 3.1 114.48 22.835 5.0 92.45 7.9 24. 20.05 3.4 116.16 24.225 5.9 44.15, 7.9 24. 21. 20. 21.	8		0	8.30	5.5	8.10	7.9	0	7
1972 2.9 111.31 19.53	3		110.26	8.52	7.6	0.49	8.1	00	112
1979 1.9 112.03 20.23 5 9.0 18.51 5 8.2 32.008 0.2 113.31 21.46 5 7.4 24.25 5 8.1 24.2008 0.2 113.31 21.46 5 7.4 24.25 5 8.1 24.2008 0.2 113.31 21.46 5 7.4 24.25 5 8.1 24.2009 3.5 114.36 22.47 5 8.6 21.51 5 80 28.2005 3.2 115.20 23.29 5 5 0 92.40 75 37 20.65 1 11.20 2.0 3.24 1 10.16 24.22 5 5 0 4410. 79 24.2005 3.4 116.16 24.22 5 5 0 4410. 79 24.2005 3.4 116.16 24.22 5 5 0 17.12 0.7 2 3 2 2 1 1 1 2 2 0 120.01 27.55 5 0 17.12 0.7 2 2 2 2 1 1 1 2 2 0 120.01 27.55 5 0 1 17.12 0.7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	6		1111.31	9.53	4.5	7.23	7	100	1+12
2008 0.2 113.31 21.465 7.4 24.255 8.1 24.255 2029 3.5 114.36 22.475 8.5 22.165 8.1 24.25 2029 3.5 114.36 22.475 8.5 22.165 8.1 24.25 2052 3.4 116.16 24.225 5.0 92.40 7.5 37 2055 3.4 116.16 24.225 5.0 92.40 7.5 37 2055 3.4 116.16 24.225 5.0 92.40 7.5 37 2055 3.4 116.16 24.225 5.0 17.120 7.6 24 2111 3.5 118.33 26.325 3.6 17.120 7.6 24 215 1.2 118.34 2.0 17.120 7.6 14 215 1.2 2.0 11.100 7.1 14 14 14 215 3.4 11.3 11.3 11.3	60		112.03	0.23	0.6	15 8	000	0	1
2029 3.5 114.36 22.47% 8.5 22.16% 8.1 24.25% 22.51% 8.0 28.20% 21.51% 22.51% 2	8		113.31	1 46	4	4 25		1 4	1
2031 11 11448 22.58 5 6 21.51 5 8 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3		114 36	7 47	. 0	1 -			
2052 3.2 115.20 23.29 5.0 9.24 7.5 37 2052 3.2 115.20 23.29 5.0 9.24 7.5 37 2052 3.2 115.20 23.29 5.0 9.24 7.5 37 2052 3.2 115.10 2.5.22 5.0 9.24 7.7 3.2 2111 3.5 118.33 26.32 5.0 17.12 0. 7.0 39 214.1 2.0 120.01 27.55 5.0 17.12 0. 7.0 39 215.1 2.8 120.02 1.25 7.5 4.4 26.01 0.01 0.0 3.2 1.4 12.5 7.7 2.50 3.0 21.49 0.3 1.4 125.29 3.11 0.05 0. 4.1 18.44 0.4 4.4 54 224.2 3.4 13.21 10.05 0. 4.1 18.44 0.4 4.4 5.4 125.29 3.11 0.05 0. 4.1 18.44 0.4 4.4 5.4 125.29 10.38 0.1 12.5 0. 12.2 0	100		114.40	000	000		0 0		
2065 3.4 116.16 24.225 5.9 4.413, 7.9 24 2111 3.5 118.33 26.325 5.9 4.413, 7.9 24 2111 3.5 118.33 26.325 5.9 4.413, 7.9 24 2111 3.5 118.33 26.325 5.0 17.120, 7.6 24 2153 2.8 120.49 22.415 6.1 10.010, 7.6 24 2253 1.4 125.29 3.110, 11.8 21.369 7.5 61 2253 1.4 125.29 3.110, 11.8 21.369 7.5 61 2356 1.7 131.29 9.030, 4.1 18.44 44 54 2357 3.2 132.31 10.050, 7.8 13.010, 7.8 6 2458 3.5 135.10 12.420, 5.2 12.28 5.7 46 2459 3.5 135.10 12.420, 5.2 12.28 7.7 46 2450 2.0 138.36 16.080, 4.1 3.59 ≤ 3.4 58 2551 2.0 140.40 18.140, 7.5 15.540, 7.0 52 2552 1.8 136.05 13.370, 6.0 13.23 7.5 10.270, 7.5 14 2551 2.0 140.40 18.140, 7.5 12.28 64 2552 1.8 141.21 19.160, 6.0 13.23 7.4 17 2551 2.0 140.40 18.140, 8.8 19.190, 7.4 17 2551 2.0 140.40 18.140, 8.8 19.190, 7.4 17 2551 3.1 145.20 26.050, 8.4 28.270, 7.4 17 2551 3.2 145.24 0.44 70 18.30, 8.4 28.270, 7.4 17 2551 3.3 153.25 1.3500, 7.0 18.000, 7.1 18.000, 7.	3 8		000	4.70		3	0.0	0.1	1
2111 3.5 118.33 26.325 3.6 29.210, 7.9 24 2111 3.5 118.33 26.325 3.6 29.210, 7.6 72 2141 2.0 120.01 27.555 5.0 17.120, 7.0 39 2153 2.8 120.49 28.415 6.1 10.010, 7.6 24 2167 1.6 121.37 29.275 4.4 26.010, 6.1 47 2233 1.4 125.29 3.110, 11.8 21.365 7.5 61 2325 3.4 125.29 3.110, 11.8 21.365 7.5 61 2325 3.5 129.21 6.70, 4.2 13.24mg 4.4 54 2325 3.1 13.129 9.030, 4.1 18.44mg 4.4 54 2408 3.1 133.05 10.380, 10.3 1.250, 7.5 48 2453 3.4 137.05 12.420, 5.2 12.28mg 5.7 46 2453 3.4 137.05 14.370, 4.0 2.05 3.4 58 2453 3.4 137.05 14.370, 4.0 2.05 3.4 58 2503 2.0 138.44 16.160, 9.2 10.270, 7.5 48 2503 2.0 138.44 16.160, 9.2 10.270, 7.5 48 2503 3.3 138.44 16.160, 9.2 10.270, 7.5 14 2503 3.4 137.05 14.370, 4.0 2.05 3.4 58 2504 3.5 141.32 19.070, 10.3 5.540, 7.0 52 2505 2.9 146.09 23.500, 3.9 21.29 2.2 4.4 5.4 2658 1.2 150.45 28.360, 8.4 28.270, 7.4 12 2658 1.2 150.45 28.360, 8.4 28.270, 7.4 12 2658 1.2 150.47 28.360, 8.4 28.270, 7.4 12 2658 1.3 153.37 1.36mg 8.7 28.130, 7.3 23 2742 2.3 153.37 1.36mg 8.7 28.130, 7.3 23	5 8		07.01	3.49		1	7.5	-	+1.4
2111 3.5 118.33 26.32 5 3.6 29.21 0 5.6 52 2141 2.0 120.01 27.55 5 5.0 17.12 0 7.0 39 2153 2.8 120.49 28.41 5 6.1 10.01 0 7.6 24 2167 1.6 121.37 29.27 5 4.4 26.01 0 6.1 47 2233 1.4 125.07 2.50 0 3.0 21.49 mg 3.3 59 2247 3.4 125.29 3.11 0 11.8 21.36 5 7.5 61 2355 3.5 129.21 6.57 0 4.1 18.44 mg 4.4 54 2356 1.7 131.29 9.03 0 4.1 18.44 mg 4.4 54 2393 3.2 132.31 10.05 0 7.8 13.01 0 7.8 6 2404 3.1 133.05 10.38 0 10.3 125 0 7.5 68 2458 3.5 135.10 12.42 0 5.2 122 8 mg 5.7 46 2458 3.5 135.10 12.42 0 5.5 9.5 mg 6.2 43 2458 3.5 135.00 10.38 0 10.3 125 0 7.5 68 2457 3.4 137.05 14.37 0 4.0 2.05 2 3.4 58 2503 2.0 138.36 16.08 0 4.1 3.59 2 3.4 58 2503 2.0 138.36 16.08 0 4.1 3.59 2 3.4 58 2557 3.3 138.44 16.16 0 9.2 10.27 0 7.5 14 2558 3.5 141.31 19.96 0 13.3 mg 6.2 4.0 56 2558 3.5 141.31 19.38 0 4.6 25.59 0 7.4 17 2658 3.5 140.40 18.14 0 19.38 0 21.29 2 2.8 64 2658 3.5 140.45 19.38 0 8.6 12.55 2 4.0 56 2658 3.5 140.45 12.8 18.8 0 18.09 0 7.0 43 2729 3.4 152.46 0 0.43 mg 7.0 18.09 0 7.0 43 2730 3.4 152.47 0 0.44 mg 7.0 18.09 0 7.0 43 2742 2.3 153.2 11.24 mg 7.0 18.09 0 7.0 43 2742 2.3 153.3 153.3 133.3	9		110,16	4.22		4	7.9	*	+1.5
2141 2.0 120.01 27.55 5 5.0 17.12 0. 7.0 39 2153 2.8 120.49 28.41 5 6.1 10.01 0. 7.6 24 2153 1.4 125.07 2.50 0. 3.0 21.49 0. 3.3 59 2247 3.4 125.29 3.11 0. 11.8 21.36 5 7.5 61 2325 3.5 129.21 6.57 0. 4.1 18.44 0. 4.4 54 2325 3.5 129.21 6.57 0. 4.1 18.44 0. 4.4 54 2325 3.5 129.21 6.57 0. 4.1 18.44 0. 4.4 54 2393 3.2 132.31 10.05 0. 7.8 13.01 0. 7.8 6 2473 3.4 137.05 12.42 0. 5.2 12.28 0. 5.7 46 2473 3.4 137.05 14.37 0. 5.5 9.53 0. 4.1 8.69 0. 3.4 58 2503 2.0 138.36 16.08 0. 4.1 3.59 0. 3.4 58 2503 2.0 138.36 16.08 0. 4.1 3.59 0. 3.4 58 2503 2.0 138.36 16.08 0. 4.1 3.59 0. 3.4 58 2503 2.0 138.36 16.08 0. 4.1 3.59 0. 3.4 58 2503 2.0 140.40 18.14 0. 3.5 5.5 4 0. 55 2504 3.5 141.32 19.07 0. 13.23 0. 5.5 4 0. 56 2513 2.0 140.40 18.14 0. 3.5 10.27 0. 7.5 12.29 0. 5.6 14.0 56 2513 2.0 140.40 18.14 0. 3.5 10.27 0. 7.5 12.29 0. 5.6 14.0 56 2513 2.0 140.40 18.14 0. 3.5 10.3 5.4 10.3	=		118.33	6.32		9.2	5.6	64	+1.6
2153 2.8 120.49 28.41	*		120.01	1	5.0	7.1	7.0	0	+11.7
2167 1.6 121.37 29.27 24.4 26.01 25.33 1.4 125.29 21.50 22.47 3.4 125.29 21.10 11.8 21.36 22.47 3.4 125.29 23.11 23.55 1.2 23.51 1.7 131.29 23.50 23.50 23.50 23.51 1.7 131.29 23.50 23	13	2.8	4	00	6.1	0.0	2.6	100	+1.7
2233 1.4 125.07 2.50 0. 3.0 2149 0. 3.3 159 2247 3.4 125.29 3.11 0. 11.8 21.36 5.7 7.5 61 2325 3.5 129.21 6.57 0. 4.1 18.44 0. 4.7 52 2356 1.7 131.29 9.03 0. 4.1 18.44 0. 4.4 54 2393 3.1 13.05 10.38 0. 10.3 1.25 0. 7.5 48 2438 3.5 135.10 12.42 0. 5.2 12.28 0. 7.7 46 2438 3.5 135.10 12.42 0. 5.2 12.28 0. 7.7 46 2448 3.5 135.05 11.37 0. 12.42 0. 5.2 12.28 0. 5.7 46 2452 1.8 136.07 13.37 5.5 9.53 0. 6.2 43 2473 3.4 137.07 14.37 4.0 2.05 3.4 58 2503 2.0 138.36 16.08 0. 4.1 3.59 3.4 58 2504 3.5 138.44 16.16 0. 9.2 10.27 0. 7.5 34 2552 2.4 139.45 17.18 0. 4.7 27.34 0. 4.5 54 2553 2.0 140.40 18.14 0. 5.5 10.27 0. 7.5 12.54 0. 5.5 2554 3.5 141.41 19.16 0. 60 13.23 0. 5.54 0. 55 2554 3.5 141.21 19.16 0. 60 13.23 0. 5.4 4.5 4.5 54 2654 3.5 146.09 23.50 0. 3.9 21.29 2.8 64 2654 3.5 148.20 26.05 0. 5.4 4.34 2. 4.5 17 2698 1.2 150.28 28.18 0. 8.4 28.27 0. 7.4 17 2698 1.2 150.45 28.36 0. 43 0. 26.10 0. 7.3 23 2742 2.3 153.24 153.25 1.24 0. 44 0. 26.10 0. 7.3 23 2742 2.3 153.24 153.25 1.24 0. 44 0. 26.10 0. 7.3 23 2742 2.3 153.27 1.36 0. 44 0. 28.13 0. 7.3 23	16	1.6	44	0	4.4	6.0	6.1	P	+17
2247 3.4 125.29 3.11Ω, 11.8 21.36 7.7 61 2325 3.5 129.21 6.57Ω, 4.2 13.24Ψ 5.6 2356 1.7 131.29 9.03Ω, 4.1 18.44Ψ 4.6 54 2393 3.2 132.31 10.05Ω, 7.8 13.01δ, 7.8 6 2409 3.1 133.05 10.38Ω, 10.3 1.25Ω, 7.5 48 2452 1.8 136.07 13.37Ω, 5.2 12.28Ψ 5.7 46 2452 1.8 136.07 13.37Ω, 5.2 12.28Ψ 5.7 46 2452 1.8 136.07 13.37Ω, 4.0 2.05 3.4 58 2503 2.0 138.36 16.08Ω, 4.1 3.59 3.4 58 2503 2.0 138.36 16.08Ω, 4.1 3.59 3.4 58 2503 2.0 140.40 18.14Ω, 7.5 12.74Ψ 4.4 5.4 5.4 2553 2.0 140.40 18.14Ω, 7.5 12.75Ψ 4.0 56 2553 2.0 140.40 18.14Ω, 7.5 12.75Ψ 7.4 24 2553 2.0 140.40 18.14Ω, 10.3 5.4 6.0 13.23Ψ 6.2 40 2564 3.5 141.21 19.16Ω, 6.0 13.23Ψ 6.2 4.0 56 2654 3.5 140.20 2.5.41Ω, 8.8 19.19Ω, 7.4 12 2694 3.5 150.28 28.18Ω, 8.6 26.29Ω, 7.4 17 2698 1.2 150.45 28.36Ω, 8.4 28.27Ω, 7.4 17 2698 1.2 150.45 28.36Ω, 8.4 28.27Ω, 7.4 12 27730 3.4 152.46 0.43Ψ 7.0 18.09Ω, 7.0 43 2742 2.3 153.24 153.37 1.36Ψ 8.7 28.13Ω, 7.3 23 2742 2.3 153.37 1.36Ψ 8.7 28.13Ω, 7.3 23	53	1.4	0	64	3.0	7	*	0	+10
2325 3.5 129.21 6.570, 4.2 13.24ng 5.0 52.2356 1.7 131.29 9.030, 4.1 18.44ng 4.4 54.2356 1.7 131.29 9.030, 4.1 18.44ng 7.4 54.2393 3.2 132.31 10.050, 7.8 13.016, 7.8 6.2438 3.5 135.05 10.380, 10.3 1.250, 7.5 48.2458 3.5 135.05 13.370, 5.5 9.53ng 6.2 43.2452 1.8 136.05 13.370, 4.0 2.05 3.4 58.250 2.0 138.36 16.080, 4.1 3.59 3.4 58.250 2.0 138.36 16.080, 4.1 3.59 3.4 58.250 2.0 140.40 18.140, 7.5 27.34ng 4.4 54.2552 2.2 141.32 19.070, 10.3 5.540, 7.0 52.2553 2.0 140.40 18.140, 7.5 27.34ng 4.4 54.2553 2.0 140.40 18.140, 7.5 27.34ng 4.4 54.2553 2.0 140.09 23.500, 3.9 21.29 2.8 64.2553 2.9 146.09 23.500, 3.9 21.29 2.8 64.2659 2.8 64.2650, 7.4 17.269 3.4 15.246 0.43ng 7.0 26.050, 7.0 43.2323 2.3 153.24 0.44ng 7.0 26.100, 7.3 23.23273 2.3 153.26 1.24ng 7.0 26.100, 7.3 23.232742 2.3 153.26 1.24ng 7.0 28.130, 7.3 23.2742 2.3 153.37 1.36ng 8.7 28.130, 7.3 23.2742 2.3 153.37 1.36ng 8.7 28.130, 7.3 23.2742 2.3 2.	24	4	5 3	3110	11.8		10		+10
2356 1.7 131.29 9.03.0 4.1 18.44mg 4.4 54 2393 3.1 131.21 10.05.0 7.8 13.016. 7.8 6 2404 3.1 133.05 10.38.0 10.3 1.25.0 7.5 48 2458 3.5 135.10 12.42.0 5.2 12.28mg 5.7 46 2452 1.8 136.05 13.37.0 4.0 2.05 3.4 58 2503 2.0 138.36 16.08.0 4.1 3.59 3.4 58 2507 3.3 138.44 16.16.0 9.2 10.27.0 7.5 3.4 58 2507 3.3 138.44 16.16.0 9.2 10.27.0 7.5 3.4 58 2507 3.3 138.44 16.16.0 9.2 10.27.0 7.4 4.5 2572 3.2 140.40 18.14.0 7.5 27.34mg 4.4 54 2573 3.2 141.41 19.16.0 6.0 13.23mg 6.2 4.0 56 2569 3.3 145.02 12.51.0 3.9 21.29 <td< td=""><td>2</td><td></td><td>000</td><td>6.530</td><td>4.0</td><td>3.5</td><td></td><td></td><td>1</td></td<>	2		000	6.530	4.0	3.5			1
2393 3.2 132.31 10.05Ω, 7.8 13.01Ω, 7.8 6 2404 3.1 133.05 10.38Ω, 10.3 1.25Ω, 7.8 6 2458 3.5 135.10 12.42Ω, 5.2 12.28	1 4		9 0	0000		9 0	2:	4 4	
2458 3.5 133.05 10.38 10.3 125 Ω 7.8 48 2438 3.5 135.05 10.38 Ω 10.3 125 Ω 7.9 48 2458 3.5 135.00 12.42 Ω 5.2 12.28 Ω 5.7 46 2452 1.8 136.07 13.37 Ω 5.5 9.53 Ω 6.2 43 2473 2.0 138.36 16.08 Ω 4.1 3.59 ∞ 3.4 58 2503 2.0 138.36 16.08 Ω 4.1 3.59 ∞ 3.4 58 2507 3.3 138.44 16.16 Ω 9.2 10.27 Ω 7.5 3.4 58 2507 3.3 138.44 16.16 Ω 9.2 10.27 Ω 7.5 3.4 58 2552 2.4 139.45 17.18 Ω 4.7 27.34 Ω 4.4 54 2553 2.0 140.40 18.14 Ω 7.5 25.54 Ω 7.4 8 2552 1.2 141.32 19.07 Ω 10.3 5.54 Ω 7.0 52 2563 3.5 141.41 19.16 Ω 6.0 13.23 Ω 6.2 40 56 2618 3.1 145.02 22.41 Ω 8.8 19.19 Ω 7.4 24 2635 2.9 146.09 23.50 Ω 5.4 4.34 ∞ 4.5 54 2658 1.2 150.28 28.18 Ω 8.6 26.29 Ω 7.4 17 2698 1.2 150.45 28.36 Ω 8.4 28.27 Ω 7.4 17 2698 1.2 150.24 Ω 0.43 Ω 7.0 18.09 Ω 7.0 43 2730 3.4 152.46 0.44 Ω 7.0 26.10 Ω 7.3 23 2742 2.3 153.27 1.36 Ω 8.7 28.13 Ω 7.3 23	2 6		4 .	20 0		0	4 6	* 1	7.77
2438 3.5 135.05 10.38Ω, 10.3 1125Ω, 7.5 48 2438 3.5 135.10 12.42Ω, 5.2 12.28Ψ 5.7 46 2452 1.8 136.07 13.37Ω, 4.0 2.05 3.4 58 2473 2.0 138.36 16.08Ω, 4.1 3.59 3.4 58 2503 2.0 138.36 16.08Ω, 4.1 3.59 3.4 58 2507 3.3 138.44 16.16Ω, 9.2 10.27Ω, 7.5 3.4 58 2552 2.4 139.45 17.18Ω, 4.7 27.34Ψ 4.4 54 2553 2.0 140.40 18.14Ω, 7.5 27.34Ψ 4.4 54 2553 2.0 140.40 18.14Ω, 10.3 5.54Ω, 7.0 52 2568 3.5 141.41 19.16Ω, 6.0 13.23Ψ 6.2 40 56 2618 3.1 145.02 12.41Ω, 8.8 19.19Ω, 7.4 24 2635 2.9 146.09 23.50Ω, 3.9 21.29 2.8 64 2644 3.5 146.09 23.50Ω, 5.4 4.34 4.5 74 2698 1.2 150.45 28.36Ω, 8.4 28.27Ω, 7.4 17 2698 1.2 150.45 28.36Ω, 8.4 28.27Ω, 7.4 17 2729 3.4 152.46 0.43Ψ, 7.0 18.09Ω, 7.0 43 2739 3.3 153.26 1.24Ψ, 5.2 18.44 3.4 60 2742 2.3 153.37 1.36Ψ, 8.7 28.13Ω, 7.3 23	9		2.7	50	0.7	9	0.1	A 1	7
2458 3.5 135.10 12.420, 5.2 12.28ng 5.7 46 2452 1.8 136.07 13.370, 5.5 9.53ng 6.2 43 2473 2.4 137.05 14.370, 4.0 2.05 3.4 58 2503 2.0 138.36 16.080, 4.1 3.59 3.4 58 2507 3.3 138.44 16.160, 9.2 10.270, 7.5 34 2526 2.4 139.45 17.180, 4.7 27.34ng 4.4 54 2533 2.0 140.40 18.140, 7.5 25.540, 7.4 8 2552 3.2 141.41 19.160, 6.0 13.23ng 6.2 40 2567 2.8 142.03 19.380, 4.6 2.55 40, 76 2618 3.1 145.02 22.410, 8.8 19.190, 7.4 24 2635 2.9 146.09 23.500, 3.9 21.29 40 56 2644 3.5 146.09 23.500, 5.4 4.34 4.5 74 2698 1.2 150.28 28.180, 8.6 26.290, 7.4 17 2698 1.2 150.45 28.360, 8.4 28.270, 7.4 17 2729 3.4 152.46 0.43ng 7.0 18.090, 7.0 43 2739 3.3 153.26 1.24mg 7.0 26.100, 7.3 23 2742 2.3 153.37 1.36ng 8.7 28.130, 7.3 23	3 ;		0.5	5	10.3	2	7.5	no A	7
2472 1.8 136.07 13.370, 5.5 9.53ng 6.2 43 2473 3.4 137.05 14.370, 4.0 2.05 3.4 58 2503 2.0 138.36 16.080, 4.1 3.59 3.4 58 2507 3.3 138.44 16.160, 9.2 10.270, 7.5 34 2507 2.4 139.45 17.180, 4.7 27.34ng 4.4 54 2523 2.0 140.40 18.140, 7.5 27.34ng 4.4 54 2533 2.0 140.40 18.140, 7.5 27.34ng 4.4 54 2557 3.2 141.41 19.160, 6.0 13.23ng 6.2 40 2567 2.8 142.03 19.380, 4.6 2.55 4, 7.0 52 2618 3.1 145.02 22.410, 8.8 19.190, 7.4 24 2635 2.9 146.09 23.500, 3.9 21.29 4, 6.4 54 2644 3.5 146.09 23.500, 5.4 4.34 4, 7.4 17 2698 1.2 150.45 28.360, 8.4 28.270, 7.4 17 2698 1.2 150.45 28.360, 8.4 28.270, 7.4 17 2729 3.4 152.46 0.43ng 7.0 26.100, 7.3 23 2730 3.3 153.26 1.24mg 7.0 26.100, 7.3 23 2742 2.3 153.27 1.36mg 8.7 28.130, 7.3 23	5		5.1	ei.	5.2	23	5.7	9	+2.4
2473 3.4 137.05 14.370, 4.0 2.05 3.4 58 2503 2.0 138.36 16.080, 4.1 3.59 3.4 58 2507 3.3 138.44 16.160, 9.2 10.270, 7.5 34 2526 2.4 139.45 17.180, 4.7 27.34mg 4.4 54 2533 2.0 140.40 18.140, 7.5 25.540, 7.4 8 2552 3.2 141.32 19.070, 10.3 5.540, 7.0 52 2558 3.5 141.41 19.160, 6.0 13.23mg 6.2 40 2567 2.8 142.03 19.380, 4.6 2.55 4, 7.0 56 2618 3.1 145.02 22.410, 8.8 19.190, 7.4 24 2635 2.9 146.09 23.500, 3.9 21.29 2.8 64 2674 3.5 148.20 26.050, 5.4 4.34 4.5 17 2698 1.2 150.45 28.360, 8.4 28.270, 7.4 17 2698 1.2 150.45 28.360, 8.4 28.270, 7.4 17 2729 3.4 152.46 0.43mg 7.0 18.090, 7.0 43 2730 3.3 153.26 1.24mg 7.0 26.100, 7.3 23 2742 2.3 153.37 1.36mg 8.7 28.130, 7.3 23	45		0.0	400	5.5	*	6.2	150	+2.4
2503 2.0 138.36 16.080, 4.1 3.59 ≤ 3.4 58 2507 3.3 138.44 16.160, 9.2 10.270, 7.5 34 2526 2.4 139.45 17.180, 4.7 27.34m, 4.4 54 2533 2.0 140.40 18.140, 7.5 25.540, 7.4 8 2552 3.2 141.32 19.070, 10.3 5.540, 7.0 52 2558 3.5 141.41 19.160, 6.0 13.23m, 6.2 40 25618 3.1 145.02 12.410, 8.8 19.190, 7.4 24 2635 2.9 146.09 23.500, 3.9 21.29 ≤ 2.8 64 2674 3.5 148.20 26.050, 5.4 4.34 ≤ 4.5 15 2694 3.5 150.28 28.180, 8.6 26.290, 7.4 17 2698 1.2 150.45 28.360, 8.4 28.270, 7.4 17 2698 1.2 150.45 28.360, 8.4 28.270, 7.4 17 2730 3.4 152.46 0.43m, 7.0 18.090, 7.0 43 2730 3.3 153.26 1.24m, 5.2 18.44 ≤ 3.4 60 2742 2.3 153.37 1.36m, 8.7 28.130, 7.3 23	47		0		4.0	-	3.4	200	+2.4
2507 3.3 138.44 16.16Ω 9.2 10.27Ω 7.5 34 2526 2.4 139.45 17.18Ω 4.7 27.34Ψ 4.4 54 2533 2.0 140.40 18.14Ω 7.5 25.54Ω 7.4 8 2552 3.2 141.32 19.07Ω 10.3 5.54Ω 7.0 52 2558 3.5 141.41 19.16Ω 6.0 13.23Ψ 6.2 40 25618 3.1 145.02 22.41Ω 8.8 19.19Ω 7.4 24 2635 2.9 146.09 23.50Ω 3.9 21.29 ≈ 2.8 64 2674 3.5 148.20 26.05Ω 5.4 4.34 ≈ 4.5 5.4 2694 3.5 150.28 28.18Ω 8.6 26.29Ω 7.4 17 2698 1.2 150.45 28.36Ω 8.4 28.27Ω 7.4 17 2729 3.4 152.46 0.43Ψ 7.0 18.09Ω 7.0 43 2730 3.4 152.26 1.24Ψ 5.2 18.44 ≈ 3.4 60 2742 2.3 153.26 1.24Ψ 5.2 18.44 ≈ 3.4 60 2742 2.3 153.37 1.36Ψ 8.7 28.13Ω 7.3 23	20		4	S	4.1	3.5	3.4	00	+2.5
2526 2.4 139.45 17.18Ω, 4.7 27.34mg 4.4 54 2533 2.0 140.40 18.14Ω, 7.5 25.54Ω, 7.4 8 2552 3.2 141.32 19.07Ω, 10.3 5.54Ω, 7.0 52 2558 3.5 141.41 19.16Ω, 6.0 13.23πg 6.2 40 2567 2.8 142.03 19.38Ω, 4.6 2.55 ∞ 4.0 56 2618 3.1 145.02 22.41Ω, 8.8 19.19Ω, 7.4 24 2635 2.9 146.09 23.50Ω, 3.9 21.29 ∞ 2.8 64 2674 3.5 148.20 26.05Ω, 5.4 4.34 ∞ 4.5 54 2694 3.5 150.28 28.18Ω, 8.6 26.29Ω, 7.4 17 2698 1.2 150.45 28.36Ω, 8.4 28.27Ω, 7.4 17 2729 3.4 152.46 0.43πg 7.0 18.09Ω, 7.0 43 2730 3.4 153.26 1.24πg 5.2 18.44∞, 3.4 60 2742 2.3 153.26 1.24πg 5.2 18.44∞, 3.4 60 2742 2.3 153.37 1.36πg 8.7 28.13Ω, 7.3 23	50		4	10	9.7	8	7.5	-	-2.5
2533 2.0 140.40 18.14Ω, 7.5 25.54Ω, 7.4 8 2552 3.2 141.32 19.07Ω, 10.3 5.54Ω, 7.0 52 2558 3.5 141.41 19.16Ω, 6.0 13.23Ψ, 6.2 40 2567 2.8 142.03 19.38Ω, 4.6 2.55 ∞ 4.0 56 2618 3.1 145.02 22.41Ω, 8.8 19.19Ω, 7.4 24 2635 2.9 146.09 23.50Ω, 3.9 21.29 ∞ 2.8 64 2674 3.5 148.20 26.05Ω, 5.4 2694 3.5 150.28 28.18Ω, 8.6 2698 1.2 2698 1.2 2729 3.4 2730 3.4 2731 2742 2742 2742 2742 2742 2742 2742 2742 2742 2742 2742 2742 2742 2742 2742 2742 2743 2745 2745 2746 2747 2747 2747 2748 2748 2748 2748 2748 2748 2748	33		*	-	4.7	1	4.4	- 10	+2.5
2552 3.2 141.32 19.075. 10.3 5.545. 7.0 522558 3.5 141.41 19.165. 6.0 13.2372 6.2 40 40 2.55 4.0 56 2.55 4.0 56 2.55 4.0 56 2.55 4.0 56 2.55 4.0 56 2.55 4.0 56 5.0	5		140.40	600	7.5	10	7.4	00	+2.6
2558 3.5 141.41 19.16Ω 6.0 13.23πg 6.2 40 2567 2.8 142.03 19.38Ω 4.6 2.55 - 4.0 56 2618 3.1 145.02 22.41Ω 8.8 19.19Ω 7.4 24 2635 2.9 146.09 23.50Ω 3.9 21.29 - 2.8 64 2674 3.5 148.20 26.05Ω 5.4 4.34 - 4.5 54 2698 1.2 150.28 28.18Ω 8.6 26.29Ω 7.4 17 2698 1.2 150.45 28.36Ω 8.4 28.27Ω 7.4 17 2729 3.4 152.46 0.43 mg 7.0 18.09Ω 7.0 43 2730 3.3 153.26 1.24 mg 5.2 18.44 - 3.4 60 26.10Ω 7.3 23 2742 2.3 153.37 1.36 mg 8.7 28.13Ω 7.3 23 20 2742 2.3 153.37 1.36 mg 8.7 28.13Ω 7.3 23 20 2742 2.3 2.3 2742 2.3	255		141.32	ON	10.3	10	7.0	64	12.7
16.5 2.8 142.03 19.38 \text{A} 4.6 2.55 \rightarrow 4.0 56 518 3.1 145.02 22.41 \text{A} 8.8 19.19 \text{A} 7.4 24 24 25 22.41 \text{A} 8.8 19.19 \text{A} 7.4 24 24 25 146.09 23.50 \text{A} 3.9 21.29 \rightarrow 2.8 64 3.5 148.20 26.05 \text{A} 5.4 4.34 \rightarrow 4.5 54 3.4 3.4 3.4 3.5 3.4 3.5 3.4 3.5 3.4 3.5 3.5 3.4 3.5	255		141.41	0	0.9	10	6.2	0	
518 3.1 145.02 22.419. 8.8 19.190. 7.4 24 535 2.9 146.09 23.500. 3.9 21.29 2.8 64 574 3.5 148.20 26.050. 5.4 4.34 4.5 5.4 594 3.5 150.28 28.180. 8.6 26.290. 7.4 17 598 1.2 150.45 28.360. 8.4 28.270. 7.4 17 598 3.4 152.46 0.43 7.0 18.090. 7.0 4.3 730 3.4 152.47 0.44 7.0 26.100. 7.3 23 730 3.4 153.26 1.24 7.0 3.4 60 731 3.3 153.26 1.34 7.0 28.130. 7.3 23	20		142.03	0	4.6	2	4.0	·vo	1+2.6
3.5 2.9 146.09 23.50£, 3.9 21.29\$\rightarrow\$ 2.8 64 3.5 148.20 26.05£, 5.4	50		145.02	100	80	6	7.4	*	-
574 3.5 148.20 26.05a, 5.4 4.34 4.5 159.894 3.5 150.28 28.18a, 8.6 26.29a, 7.4 17598 1.2 150.45 28.36a, 8.4 28.27a, 7.4 129.81 1.2 150.45 28.36a, 8.4 28.27a, 7.4 12.29 3.4 152.46 0.43mg, 7.0 18.09a, 7.0 4.3 23.30 3.4 152.47 0.44mg, 7.0 26.10a, 7.3 23.39 3.3 153.26 1.24mg, 5.2 18.44 3.4 60.44 153.2 1.35mg, 8.7 28.13a, 7.3 23.30 24.2 2.3 153.26 1.34mg	100		C	100	3.9	2	2.8	*	+2.8
994 3.5 150.28 28.180, 8.6 26.290, 7.4 17 598 1.2 150.45 28.360, 8.4 28.270, 7.4 12 729 3.4 152.46 0.43mg 7.0 18.090, 7.0 43 730 3.4 152.47 0.44mg 7.0 26.100, 7.3 23 739 3.3 153.26 1.24mg 5.2 18.44 3.4 60 742 2.3 153.37 1.36mg 8.7 28.130, 7.3 20	10		4	10	5.4	4	4.5	- 10	1+2.8
998 1.2 150.45 28.36a, 8.4 28.27a, 7.4 12.729 3.4 152.45 0.43mg 7.0 18.09a, 7.0 43.730 3.4 152.47 0.44mg 7.0 26.10a, 7.3 23.739 3.3 153.26 1.24mg 5.2 18.44	.88		0.00	00	8.6	6.29	7.4	-	-2.9
729 3.4 152.46 0.43mg 7.0 18.09Ω, 7.0 43 730 3.4 152.47 0.44mg 7.0 26.10Ω, 7.3 23 739 3.3 153.26 1.24mg 5.2 18.44	150	1.2		00	4	8 27	7.4	100	-29
730 3.4 152.47 0.44mg 7.0 26.10Ω 7.3 23.730 3.4 152.47 0.44mg 5.2 18.44 3.4 60.742 2.3 153.37 1.36mg 8.7 28.13Ω 7.3 20.742 2.3	E	*		0	10	8 00	10	1 00	1
739 3.3 153.26 1.24mg 5.2 18.44 3.4 60 742 2.3 153.37 1.36mg 8.7 28.13 \(\alpha \) 7.3 20		3.4	152.47	0.44m	10	6 10		2 60	120
742 2.3 153.37 1.36mg 8.7 28.13.0. 7.3 20.2	2			1 74mm	6.3	8 44		5 C	1430
4.04 5.0 10.01.04 1.00 X 1.00 X	4	. 60	9 "	1 16mb	0.7	8 13		30	130
	Ė	-	?	Yangaria I		0.10		4	-

	NI SENDO		13.0	1	+	+3.1	+	-3.2	13.2	7.		1	ï	+	1	1	+	+	+	Î	+3	7	+	+	įή	+	7	ï	ĩ	ï	+	ĩ	+3	+	+	+3.0	1
	DECLINATION OR GEO.LAT.	10	42.00N	-		5	40	56.55N	62.17N	20	16 500		4	52	15.18N	54.15N	\$0.10S	22.048	58.115	57.35N	\$9.518	62.338	15.585	56.335	22.515	\$00.00	\$6.30N	38.51N	11.30N	22.39N	36.115	55.27N	10.385	0.0	52.578	W	49.49N
3	+ 124 121		7.0		4	5.4	6.9	0.0	5.5	35	: -	. 8	200	40	7.1	5.5	5.8	6.9	5.1	2.0	4.9	4.7	6.9	5.5	6.0	7.0	4.7	6.1	7.0	7.7	6.9	4.5	7.1	7.	6.5	6.9	5.2
-Epoch 1900	Lous Zon.	1	19.50g	2	4	9.1	8.58	18.01 R	13.52 R	27.23 81	12 43 mm	\$ 16mm	2 48mm	3.118	20.09mp	29.048	26.06~	10.16	4.18m	29.37 R	6.56m	10.30m	12.04	5.21m	16.00≥	10.16m	1	23.10mg	00		्य	-	22.26~	20.45 ←	9	0	25.30mg
SIARS	CHANGE IN +	-	4.6	2.6	6.2	6.9	7.9	8.6	6.6	, o	0.0	0 00	0 8	7.5	8.3	8.7	4.8	4.8	8.6	8.1	8.7	0.6	4.0	0.6	9.0	2.0	7.5	7.5	8.1	8.7	0.6	6.5	4.8	8.1	10.0	9.5	6.2
BRIGHT ST	,A .A	1	9	77	4		6.3	33	3.0	f v	10.00mg	16		2.0	3	6.5	0.52	14		m	47		4	6.58≥	4.	11.7.40	13.29	3.5	in	5.6	0.1	5	21.37	24.12	25.14≈	-	27.54~
DK	иотенареу Мотенареу	0	154.05	57.1	3	60.3		63	4	000	160 001	00	100	12		177.08	180.47	181.14	182.27	182.37	184.00	-	186.10	186.24	187.17	100.78	192.24	192.50	46	98.2	98	6	8	202.24	119	05	0
	MAG.			+ 1	1.1	5.0	5.0	2.2		200	2.2		00	3.1	2.2	2.3	2.7	2.2	2.9	3.3	3.4						1.6										1.00
	AATS ON		2751	1187	1/87/	D2875	2888	2930	B2933	2000	2074	D2085	4.0	3054	3101	3117	3165	3172	3187	3190	6.3	D3237	3256	3263	3280	. 44	3363	03371	3383	3449	3452	D3474	3476	3508	3521	3565	3566

TABLE V
BRIGHT STARS—Epoch 1900

TEN YEARS	1	13.0	+2.9	+2.0	+3.0	120	13.1	-2.6	+2.6	+2.6	+2.6	+2.6	-2.5	+2.5	+2.4	+5.4	-2.4	+2.3	73	+2.2	1+2.2	+2.2	7	7	-2.0	0	611	4	41.5	+ -	-	+	+	+1.5	+1.5	7	+	T	+1:3	
DECLINATION OR GEO. LAT.	100											46.585								9.018	40.175	44.20S	89.19N	40.50N	27.03N	#	4. (3.07	3.0	3	77.7	7	20	4.275	21	4	6.1	21.42N	8.0	
+ 68A3Y M3T	1	6.9	6.4	73	17	2.5	8.9	6.4	7.4	7.6	9.9	7.3	7.0	7.6	7.6	7.6	6.3	7.5	7.0	7.8	7.7	7.7	3.3	3.3	7.3	7.7	7.7	7.9	1.7	0.0	0.0	2.0	0.0	8.0	8.1	2.7	8.1	7.9	<u>~</u>	
LONG LONG	, 0	7.56	14	7.03	0	10	2.50	6.15	00	00	o	9	5.40	3.42	3.38	2.54	2.48		1.44	8.03	9		8	1.45	10.5111	8.78	8.31	4.32	27.0	7 8	3	9:	9	2.06 #	24	4	8.20 \$	401	03	
CHANGE IN		7.5	10.9	8.9	9.2	4.2	7.1	6.2	9.6	8.8	12.2	0	6.7	8.3	8.6	9.7	in	10.6	0.9	7.9	9.6	6.6	60.00	8.6	6.2	7.1	6.7	0.0	1.71	000	0.0	20.0	4.7	7.5	8.7	1.9	8.7	6.1	- 4	
Lous R. A.	, 0	29.34 ←	0	0	2.23m	1	*	100	-	0.50	CI	11.15m	9	00	OÓ.	an.									24.58Ⅲ					1 770	0.40	7.007	4.10 7	5.12.7	5.41 £	7.28 #	7.37 £	8.14 #	1 2006	
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, DAM		2.7	0.5	3.4	2.0	3.5	0.0	3.0 1	7.4	3.0	3.2	5.3	2.4	5.8	2.7	3.2	3.6	3.4	3.4	2.6	4.5	br. eri	3.4	2.8	27	2.7	3.5	+ 0	0.0	40	9.0	0.0	1.7	3.1	3.0	2.7	0.8	2.6	2.8	
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TABLE V
BRIGHT STARS—Epoch 1900

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CHAPTER X

GENERAL AND TECHNICAL CONSIDERATIONS

Before concluding this astrological brief it may be well to insist that the investigator be reasonably precise. If large orbs are allowed, after the manner of astrological texts, either longitudinally or latitudinally, only failure and confusion will result.

The number of stars to the 7th magnitude is so great that if orb distances are not kept small-and our aim should be to tolerate them as little as possible if astrology is ever to prove itself to critical minds, and if the stars' positions are not corrected to the year in question, many stars will be assigned to a place and to an event when they really concern some event a little farther north or south.

In utilizing the simplified formulae of this work an orb of 15' in latitude-declination co-ordination will often be large, and a 5' orb or less is none too high an aim to strive for, except in the case of events involving an entire nation, or cities which subtend a larger north-and-south arc within their limits, or except where it is found that a star now nearly latitudinally zenith to a city was exactly so at the time of its foundation, or at the birth epoch of the individual or the generation agent to the event, or at the beginning of the circumstance leading directly thereto. These considerations will often necessitate computing the **declination** of the star for some part of perhaps a quarter or half century prior to the date of event.

Whether the **longitude** of the star is to be computed for the date of event or for the birth epoch of the living agent to the event-if it is not an event of "Nature" such as a storm or earthquake-depends entirely upon whether the star configures the current position of a planet or a planet's position in

nativity. The reason for this will at once be clear to those familiar with the nature of precession and its relation to the stellar and planetary point of reference-the equinox. See also footnote in Chapter IV, page 37.

In longitude, whether mundo or zodiacal conjunctions, perhaps 2° or 3° should be allowed the amateur and for general utility work, but 4° is usually better discouraged. For in the matter of orbs it is necessary to remember in all astrological work that aspects obey Newton's law. That is, the strength of any aspect deviating from the true electrical axes defined in crystals is **in all cases inversely as the square of the orb distance.** A partile aspect is 100% efficient for good or ill, whereas a 5° orb is $\underline{100}$ or 4% efficient and constitutes only

'bank interest' towards the "capital event". Any nativity will demonstrate this truth to the critical observer and should persuade the serious student to abandon crude computations in all his research. While the time-saving practice of computing star longitudes with Chaney's Oblique Ascension Tables, as instructed in Chapter III, will often result in one to three minute errors, here and there, this failing of the interpolative method is of little moment as compared with the pitfalls which beset those who can seldom be persuaded to split a degree.

It is thought the orb allowances just suggested are, in the light of the illustrative examples, liberal enough for students of limited training, yet small enough to render the simplified rules sufficiently accurate for many useful observations. But it should be clearly understood that the need for such longitudinal orb allowances diminishes, and even disappears entirely, as we choose to carry the principles to a more refined mathematical expression. To have done this in all the preceding examples would have made this work difficult of application for the beginner and would have far exceeded this volume's modest limitations.

There is no tangle at all. Rather there is perfect and simple order, as doubtless Einstein is well aware. Make no mistake: The "points of intersection" which he admits cause three-dimensional events in a four-dimensional continuum, and which define the planes of electromagnetic fields whose sum, say Morecroft and Steinmetz, constitute the so-called ether of space, can now be computed and events explained as to time, place and nature in so far as they pertain to the earth's small stage.

Lest these remarks appear too sweeping, or as an attempt to conceal an astrological weakness (inexact arcs) behind a screen of abstruse verbiage, or as an indifference or inaptitude of the author to press the investigation or evidence further, it may not be amiss to point out and illustrate the nature of a few corrective refinements.

In **Case 1**, Chapter V, it was shown star No. 5996 was in longitude 9°01'Ar, conjunction with Astor's Neptune in

8°22'Ar. Here is an apparent orb of 39" in longitude, the equivalent of 34 miles east and west in terms of geographic equivalent in the latitude in which the accident occurred. But the R. A. of 9°01'Ar is 8°17'. As his Neptune was in 1°29' south celestial latitude the R. A. of its longitude, 8°22'Ar, was 8°16'. Therefore Neptune was mundo conjunction with the ecliptic longitude of the star. The elastic orb of 39' thus shrinks to one minute or one mile when the more exact formula of co-ordination ordination is used.

Or take Case 2, Chapter V, in which it was stated Mrs. Astor's Jupiter was in 17°30'Pi, the ecliptic R. A. of which is 348°30', or 12' east of star No. 5996 in R. A. 348°18' at her birth epoch. But in this case it was Uranus trine to the Sun at birth that indicated the loss of husband in so sudden a manner. Therefore we should couple Jupiter with this star in the latitude of Uranus, that is, in Uranus' **field plane**, rather than in the ecliptic (the earth's orbital plane). At the time of her birth Uranus was in 0°33'N, and the R. A. of 17°30'Pi in this latitude is 348° 18', the exact R. A. of the star as noted above.

In Case 3, Chapter V, Stead's Mars was in latitude 1°32'S, and the R. A. of his Neptune in 4°37'Pi in this latitude is 337°03'. This is mundo conjunction with star No. 5831 in R. A. 337°02'. The 17' disparity shown by taking the inductive coupling on the ecliptic is thus eliminated.

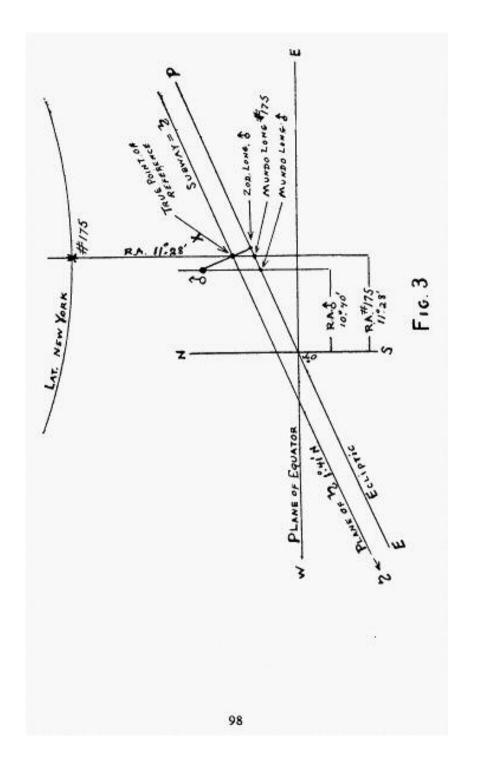
In Case 5, Chapter VI, star No. 2830 is shown in mundo longitude 6°47'Vi, which is 31' east of Mars in 6°16'Vi at the solar eclipse. But in this case a fire (Mars) was the medium to the accident, and so we should electro-magnetically couple the star and Mars in the plane of Mars, not in the ecliptic plane. At the time of the eclipse Mars was in latitude 1°09'N, and its longitude 6°16'Vi in this latitude gives R. A. 158°29'. As the star's meridian cut the ecliptic in 6°47'Sc its R. A. was 158°31'. Thus the half-degree apparent error shrinks to two

minutes, or well within the arc subtended by even a much smaller city.

To make clear how the latitudes of the planets affect the field couplings and their mathematical resolution, another example will be given and illustrated in diagrams which show how the latitude advances or decreases the R. A. of the planet. They will also show how a planet and star couple in the plane of **another** planet.

If we were seeking to account for the New York subway disaster of August 24, 1928, we would notice that star No. 175 has been circling daily over New York within the present generation's period ¹. Computing its R. A. for 1928 we find it to be 11°28', and this we may note down as 12°28'Ar, after the manner C, Fig. 2. Referring back to the lunar eclipse on June 3, 1928, as the foreshadowing phenomenon occurring at the intersection known as the Moon's node, we find Mars was then 13°14'Ar, mundo conjunction with No. 175. But the orb or disparity is 46', and this to the critical mind is intolerable and appears as a great weakness-a mere "coincidence"-in our entire theory. So it would be. Now if we compute the R. A. of Mars, which was in 3°47' north celestial latitude at the time of the eclipse, we obtain R. A. 10°40', and as this is 48' amiss of the R. A. of the star, 11°28', we are no better off than before.

Must we, then, tolerate this orb? Not at all. Neither of these calculations apply to the known circumstances in this particular case. If we are thoughtful we will not at once plunge into a maze of figures. Rather we will first consider that it was a **subway** (Saturn) accident, and that Saturn "held dominion" ², as Ptolemy would say, at the time of the eclipse by being near a conjunction with the Moon. We will also see from



¹ Central over the period 1895-1905.

² In the present day we would say the Moon and Saturn were "in electrical phase," or had a small mutual "phase angle", and were "close coupled" as regards their fields.

the ephemeris for 1928 that at the time of the accident Saturn had moved on to conjunction with the place of the eclipsed Moon in 12°38'Sag ¹. Therefore we must in this case couple the electric fields of Mars and No. 175, not in the plane of the ecliptic nor in the plane of Mars, **but in the plane of Saturn.** Now Saturn at the time of the eclipse was in 1°41' north celestial latitude, and the R. A. of Mars 13°14'Arr, in this latitude, was 11°29', mundo conjunction with No. 175 in R. A. 11°28'. The coupling is shown in Fig. 3 by the arrow X.

Figure 4, shows another phase ² of the same disaster. Inspection of the 1928 ephemeris shows Uranus respectively 6°47' and 6°42'Ar at the times of the eclipse and event. Its latitudes were 0°43' and 0°45'S as in the drawing. Computing from Boss' catalogue we find No. 85 was in R. A. 6°14' in 1928, and this gives its mundo-ecliptic point as 6°47'Ar, exact conjunction with Uranus at the eclipse. Thus the electric fields of the Sun and Uranus intersected in the earth in the right ascension (earth or armature rote) of the star, as shown at S in Fig. 4. And since at the accident Uranus was 6°42'Ar, its R.A. in 0°17'S (the plane of the eclipsed Moon) was 6°16', which is but 2' amiss of the R. A. of the star in 6°14' Hence at the accident Uranus was right ascensional conjunction with the star in the plane of the eclipsed Moon, as shown at T in Fig. 4.

This phase of the accident bears on the report that "it was known (Moon) the railswitch (Uranus) was defective, but it was thought upon inspection (Moon) that it would serve another day (Sun)." Computing the geographic latitude of No. 85 we find it precessed over the latitudinal nadir (destructive, X, Fig. 1) of New York about 1896. We can therefore say definitely that

some person between 30 and 35 years of age had something to do with the inspection of the defective switch, or with the order to defer its replacement (Uranus) ¹. It will be seen from Fig. 3 that the accident (Mars) was due to the deferment (Saturn), since No. 175 configured Mars in the plane of Saturn.

It must not be thought that the Saturn, Moon and Uranus lines in the drawings represent these bodies' orbits. Rather they show their field planes in the earth as the earth moves as a charged body and as a spherical magnet along its orbit EP, the ecliptic or apparent solar path. As the earth advances it also rotates and its right ascensional or armature plane cuts or intersects the planetary and stellar field planes as illustrated. Without here going into fuller details of the electrical phenomena it may be said that this results in the "current" events.

As a final example and by way of further encouraging the student to coordinate the principles set forth in this work and in **The Earth in the Heavens**, let us take the Cleveland medical clinic disaster, May 15th, 1929, in which the lives of scores of patients, nurses and doctors were snuffed out by the deadly gases from exploding X-ray films.

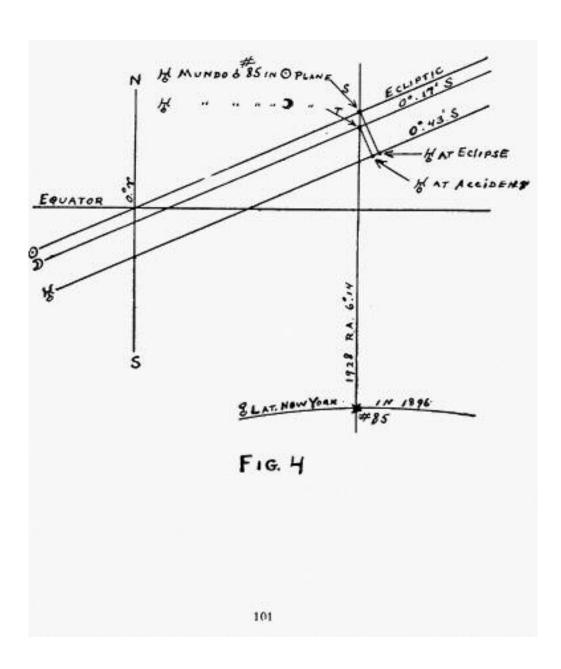
First we must connect this event with the Solar eclipse preceding it on May 9th. At the time of this eclipse Neptune (films) was geocentrically stationary in 28°35'Leo, in trine to Saturn (medical clinic), trine to Venus (poison), sesquiquadrate to Uranus (explosion) and semisextile to Mars (fire). Turning to the Boss star catalogue we find star No. 2701 circled in exactly the latitude of Cleveland in and near 1871 ², which is doubtless approximately the birth epoch of the founder or head physician of the clinic. At that epoch the R. A. of this star was 150°48', making its mundo longitude about

¹ Exact sextile with the New York meridian of 1928 as given in **The Earth in the Heavens**, Chapter V, Example 12.

² Electromagnetic coupling.

¹ Star No. 175, zenith to New York over 1895 to 1905, would also involve persons of 23 to 33.

² Circling over the north-south arc of the city for several years around that epoch.



THE STARS

28°39'Leo, conjunction with the place of Neptune at the eclipse as above noted. The star's R. A. for 1929 is 151°40', and this, **in the plane of Mercury** 2°24'N at the May eclipse, gives longitude 28°35'Leo.

From Table I, **The Earth in the Heavens**, we find Cleveland's Ascendant for 1929 to be 28°04'Leo, in close square to the above place of Neptune at the eclipse. Here, however, we should note that though Neptune refers to hospitals it is Scorpio and Saturn which symbolize medical clinics. Therefore we should couple the Cleveland Descendant in Scorpio with the square of Neptune, and this coupling should be taken **in the field plane of the Moon** because the Moon refers to photographic processing and to recorded **observations** of all sorts. At the time of the eclipse the Moon was in 0°17'S. The oblique descension of 28°35'Sc., the square of Neptune, in this latitude, and for the geocentric polar elevation of Cleveland 41°18'N, works out to be 217°28'. From which the RAMC becomes 217°28'+ 90°, or 307°28', which is the RAMC of Cleveland as given in Table I of **The Earth in the Heavens**, as computed from the Greenwich celestial base given therein.

Next we may note that the Solar eclipse on November 1, 1929, occurs in 8°28'Sc., the sign signifying medical clinics. We must therefore expect that directing Cleveland for this eclipse we will find it electro-magnetically coupled with Neptune's place at the May eclipse. Testing this we have:

307°27′ RAMC of Cleveland in 1929, Table I ¹. 216°05′ R. A. Sun 8°28'Sc at November eclipse

163°32' Prog RAMC (add and reject circle)

90°00"

253° 32' O.A. Cleveland Asc. at Nov. eclipse.

¹ This equation and those following in this example will be clear from the study of **The Earth in the Heavens.**

As the disaster was due to the films (Neptune) taking fire (Mars), we have now to show that this is the oblique ascension (O. A.) required to bring Cleveland's progressed Ascendant square to Neptune in the field plane of Mars-taking both values for the time of the May eclipse.

The solution becomes:

28°35'Sc in latitude of Mars, 1°44'N = R.A. 236°44' 28°35'Sc in latitude of Mars, 1°44'N = Dec. 18° 39'

and,

Dec. 18°39' Tangent 9.516057

Lat. 41°18' Tangent 9.943752

A.D.16°46' Sine 9.459809

R.A.236°44'

O.A.253°30'

This agrees with the O. A. of Cleveland's progressed Ascendant within two miles to the west of the point used to compute the city. If we substitute the geographic latitude in this equation we obtain O. A. 253°36' or four miles east. To what degree the accident was due to spontaneous combustion (geocentric or "natural" causes) or to human negligence (geographic or "living" agencies) has at this writing not been officially determined, but the opposing disparities would point to both in nearly equal degree.

Directing Cleveland for the time of the accident, 11:20 A. M., May 15th, we have:

307°27' RAMC of Cleveland for 1929 ingress.

52°00' R. A. Sun 24°22' Ta at time of explosion.

359°27' R.A. prog. M. C. 29°24'Pi, square to Saturn 29°31' Sag on that date. This direction hints that Saturn must have configured a star whose radial field passes through Cleveland. In verification we find star No. 4599 was about 2° east

of conjunction with Saturn, and in 1929 this star circles in latitude 41°21' S, latitudinally nadir (X, Fig. 1) to the north part of Cleveland whose geocentric center is about 41°18'N.

Since at the May eclipse Mars was in 27°55'Can, in sextile to Cleveland's Ascendant in 28°04'Ta, and as we took the direction of the progressed Ascendant in square to Neptune in the field plane of Mars, we must expect Mars to also latitudinally couple with Cleveland through the radial field of a fixed star. As verification we find this longitude of Mars was exact mundo conjunction with star No. 2137, and that this star, at this period, circles in 41°07'S, nearly nadir to Cleveland in 41°18'N.

It should also be noted that the explosion occurred when the Sun passed the semisquare of the place of Uranus at the May eclipse, Uranus being close to the 12th (hospitals) angle of Cleveland. Mindful of Case 1, Chapter V, we need not search far for the star latitudinally coupling Uranus with Cleveland. For Uranus at the time of the explosion was in 9°54'Ar, and star No. 5996 is in zodiacal longitude 9°55'Ar in .1929, and it now circles in latitude 41°23'N, over the north portion of Cleveland.

If the student will diagram all these factors, after the manner of Figs. 3 and 4, he will get a much clearer understanding of the inductive couplings than is possible from this verbal presentation of the solution of this event.

In concluding this chapter it may be stated that directions in nativities also induce events by virtue of the static and magnetic induction set up by the mutual inductions of planetary fields, and of planetary and stellar fields, not in ecliptic plane only, but also in the parallel planes of all the planets, according to their celestial latitudes at birth ¹. It has been the failure of astrological authorities to recognize this fact, and the unwarranted use of the crude Ptolemaic yardstick in converting spherical

¹ Not according to their latitudes when at the point of direction, as texts have taught in the past.

arcs into age, that is responsible for the failure of directional astrology as commonly practiced, and which results in the low esteem accorded astrology wherever the justificably exacting occidental mind dominates.

It is hoped to demonstrate this in another text on rectifying and directing nativities, though the computation of the true sidereal Solar arc, and of directing in planetary latitudes as herein touched upon, is given in Chapter VI, **The Earth in the Heavens.**

The true cosmic electrodynamics can be fully comprehended only by those who make an intensive study of astronomy and the modern electromagnetic wave theory. The work of Newton, Einstein, Steinmetz, Morecroft, Biot, Cady, Michelson son, and others, must be coordinated in order to clear up the enigmas obscuring the design of the Invisible Power. The riddle of first cause or motivation will not yield to any narrow specialist, be he astronomer, astrologer or electro-physicist.

Datum is available to extend the refining examples indefinitely but all that can be done in this brief work is point the way. With this reserve evidence the author feels prepared to defend his theory on any grounds upon which scientific specialists may see fit to contest it. If it will not speak their language as well as that of astrology, let us have none of it.

It can hardly be expected that all the refinements and technicalities of a subject that reaches into every corner of the cosmos and relates to laws and discoveries scattered through out the entire field of science, can be compressed into so brief a discussion. Either astrology is a vast subject, worthy of the Kepler, Flamstead, Bacon and other brilliant minds who in the past have championed it, or it is what its unthinking critics imagine it to be-the supreme delusion of the ages.

As to that the individual must judge for himself; though he has no right to judgment if he declines to inform himself.

CHAPTER XI

CONCLUSION

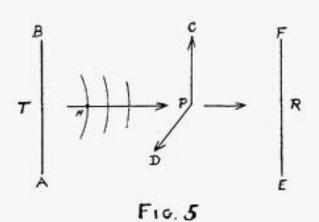
To conclude this treatise it seems pertinent to a better understanding of the theory to extend the elucidation a little further in order to make this presentation a little more self, complete.

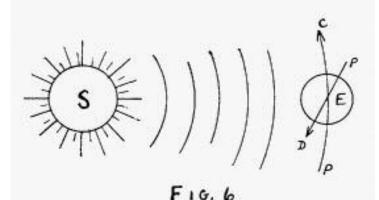
To illustrate the principles refer to Fig. 5. Let AB represent a radio-transmitting aerial, and let the arrow define the direction of propagation of a given point, H, in the radiated wave. Then PC illustrates the direction of the accompanying electric field and PD defines the direction of the magnetic field, as the wave moves to the receiving aerial EF ¹.

Substituting the Sun for the transmitter T, and the earth for the receiver R, and substituting the Sun's electromagnetic light waves for the relatively low radio waves, we have the relations shown in Fig. 6. From this it will be seen that the **electric** field set up in the earth by the Sun's light waves is in the plane of the earth's orbit (the ecliptic) and in the direction of its orbital revolution about the Sun. The **magnetic** field is perpendicular to the electric field, and thus its plane is defined by the **celestial** poles.

Now refer to Fig. 7. Let WNES represent the earth and also one-half the celestial sphere collapsed upon its surface for co-ordination purposes of illustration. Then EW is the equator and PC is one half the ecliptic. PC, which is geocentrically or optically the apparent solar orbit, also defines the light waves' electric field's plane relative to the earth. DX defines the celestial poles or the light waves' magnetic axis or

¹ See Morecroft's **Principles of Radio Communication**, page 318. 106





108 THE STARS

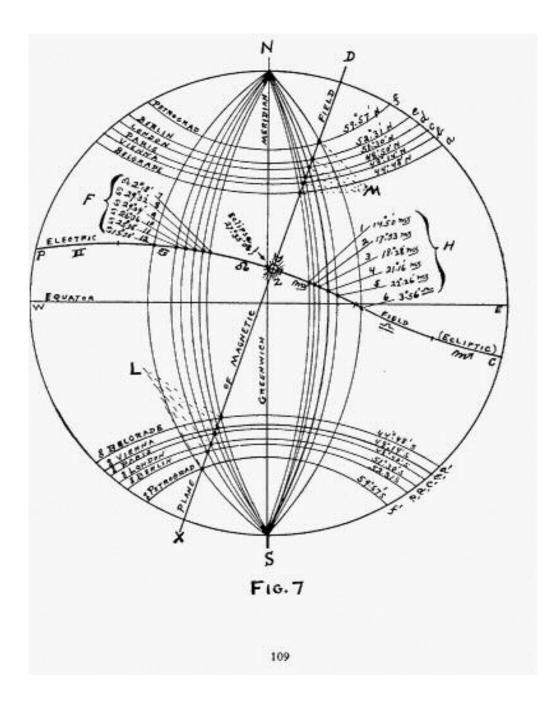
lines of force threading the earth. From which it will be seen that the magnetic poles do not, and why they do not, coincide with the geographic poles, also why the slow precessional motion of the earth's poles changes the compass deflections and dip at a given geodetic station in cycles of about 25,800 years.

The drawing is for the time of the Solar eclipse, August 21, 1914; the Sun and Moon being shown at Z, in 27°35'Leo¹, a little east of the Greenwich meridian; **the eclipse casting its shadow across Europe.** The Solar electromagnetic light waves in their **earthward** propagation were thus, in part, intercepted by the intervening Moon² (which it may serve imperfectly to think of in such case as analogous to the grid interposed between the filament and plate of a vacuum tube), thus depressing or changing the intensity of the electric field in the plane PC and changing the magnetic field flux in the plane DX, with particular reference to the earth's field force within the path of the shadow. **Such a change in the field strength results in a change in the eddy currents in the earth**. Thus a Solar eclipse is one of several celestial phenomena which becomes the generator of current flow or the motivation of current events. Lunar eclipses are also generators, as the Moon acts as a **reflector** of the solar waves and reflects them to the earth to the greatest degree when at full and not at all when either new or **eclipsed** at the full. Thus a Lunar eclipse also causes a current change.

This Solar eclipse on August 21, 1914, is the astrological key to the World War. For Mars at the summer solstice (when right and oblique motions are in parallel planes-when inclinations seem right and right is the inclination) was in 27°44'Leo, setting up a "war field" in the plane DX in readi-

¹ Conjunction with the ascendants of Berlin, Vienna, etc., as shown in The Earth in the Heavens, Chapter V, example 9.

² Which of course was not north of the Sun as diagrammatically shown, but between the Sun and the earth.



110 THE STARS

ness, so to speak, for the generating spark of the eclipse at that point later. The visible cause of war lies in the temper of a people-in the heat frequency to which Mars, as an oscillating crystal of definite mass and diameter, holds the stellar and solar carrier waves at one of their lower harmonics ¹.

Further evidence that this eclipse is the key to the war lies in the fact that Saturn, "the quitter" ² or low-frequency crystal control, arrived at the longitude of this eclipse **on the morning after the armistice**, having transited nearly two signs during the war. As the war lasted about 1567 days, and the error is one day, there was just one chance in 1567 of this being a meaningless coincidence.

In the drawing a, b, c, d, e, f represent, as nearly as diagrammatically possible for clearness, the latitudes of Belgrade, Vienna, Paris, London, Berlin and Petrograd. They are analogous to DCE, Fig. 1, and PMOT, Fig. 2. And a', b', c', d', e', f' are their nadir circles, analogous to XYZ, Fig. 1.

Now as these capitals revolve in their latitudinal circles with the diurnal revolution of the earth in the plane EW, what we want to know is at what points their meridian circles ³ cut the eclipse's electric field PC (ecliptic) when they cut the magnetic field, DX, at the points M and L. These points, H and F, become in our cosmic dynamo the commutation points ^a of the eclipse-generated currents at these capitals. That is, they are the arbiters of the time factor of the "current" events of the opening war.

The points H and F are easily computed by the formulae in Chapter III. For example, let us compute point 5, 22°26'Vi,

¹ See the works on piezoelectric crystals as used in radio transmitting circuits.

² It is true Saturn is a persistent fellow and a "die-hard". but when either its stern disciplinary or Satanic purpose is accomplished it becomes the quitter and retreats more humbled than those its plans sought to crush.

³ Their "armature bars", so to speak.

^a The set of the "brushes" of the cosmic machine in so far as the eclipse relates to these latitudes.

the commutation point for Berlin when its upper meridian passes the eclipse's "pole piece", DX.

27°35'Leo Longitude of Eclipse

+90°

27°35'Sc, which from Chaney's Oblique Table, for the latitude of Berlin, gives 263°03' O.A.

<u>-90°</u>

 $173^{\circ}03'$ R.A. = $22^{\circ}26'$ Vi

And so on for the other H points. The F points are of course computed by the rule for **south** latitude. The drawing is made accordingly, closely to scale.

These twelve ecliptic points, six zenith and six nadir, commutate the currents at these capitals of the six nations embroiled in war within one week at the close of July and early August 1914. Consulting **Raphael's Ephemeris** or a **Nautical Almanac** for 1914, what do we find?

A partial answer as to H points may be tabulated as follows:

July 20th	Mars	conju	nction 1	point 1 (Belgrade)
July 25th	Mars	"	"	2 (Vienna)
July 26 th	Mars	"	"	3 (Paris)
July 28th	Venus	"	"	1 (Belgrade)
July 30th	Venus	"	"	2 (Vienna)
July 31st	Venus	"	"	3 (Paris)
July 31st	Mars	"	"	4 (London)
Aug. 1-2	Mars	"	"	5 (Berlin)
Aug. 2nd	Venus		"	4 (London)
Aug. 3rd	Venus	"	"	5 (Berlin)
Aug. 3-4	Venus		" Mai	rs near points 3-4-5.
July 28th	Sun se	xtile Ma	ars at ec	clipse, conj. point 6.

One to two days plus and minus should be allowed to these dates to include the same conjunctions taken in the field planes of all the planets. Thus at the time of the eclipse Saturn, Jupiter and Venus were all in about one degree south latitude, and the above excitations taken in that latitude make them one to two days later.

The reader should consult a history of the war when comparing the various martial (Mars) and diplomatic (Venus) gestures during those memorial two weeks of crisis; the moreso as some of the diplomatic moves contributed far more to precipitate the war than to avert it.

A few of the moves in the drama follow:

July 23rd Austria's ultimatum on Serbia

July 25th Austria's ultimatum expires. She rejects Serbia's concession. Russia begins mobilization (aimed at Austria).

July 26-27 Britain and Germany diplomatically sparring. July 28th Austria declares against Serbia. Forces Russia's hand.

July 29th Germany sounds Britain on neutrality. Grey rejects.

July 30th General Russian mobilization (aimed at Austria.

July 31st Germany's ultimatum to Russia

Aug 1st Germany declares against Russia.

Aug. 2nd Germany violates Belgium

Aug. 3rd Germany declares against France.

Aug. 4th Germany against Belgium and Britain. Britain against Germany

From Table I in **The Earth in the Heavens**, and in a 1914 ephemeris, the reader may also see that Venus and Mars passed the trine of Belgrade's, Vienna's and Berlin's midheavens between July 20th and August 4th. If we compute star No. 2325 for 1914, we find its **zodiacal** longitude was 13°31'Vi,

over which Mars transited at the beginning of the crisis in late July. Its geographic latitude was 52°48'N, close latitudinally zenith at Berlin. This is one of the several stellar indications of the inducements, war inclinations and **demands** of Germany relative to Austria and Russia. There was nothing "right"-no right ascensional arc-in Berlin's voicing of this star at that time. Its coupling was ecliptical and Mars, the War Lord, was at the cosmic microphone modulating this star's carrier wave at that time.

Now as to points F.

Mars was approaching point 12, sensitive to Russia, at the time of the New Moon following the Ingress 1, and Jupiter arrived at this point in the month of the armistice.

Neptune was precisely at point 11, sensitive to Berlin, at the time of the Lunar eclipse, March 11, 1914. It is well known a full moon, even if not eclipsed, excites strained natures to madness. Hence Berlin's alleged mad Kaiser.

Neptune was precisely at point 10, sensitive to London, on June 12, 1914, when Jupiter was stationary in opposition to Mars, and Mars conjunction with the world Ascendants of the western battle front and square to the Midheavens of Central Europe ².

Neptune was precisely at point 9, sensitive to Paris, at the time of the Solar eclipse for which the drawing is made. Neptune was but 2" amiss of point 8, sensitive to Vienna, at the time of the Lunar eclipse, September 4, 1914. A full moon madness stirring Austria even as the earlier Lunar eclipse ex' cited Germany.

Mars passed point 7, sensitive to Belgrade, on May 5-6th, 1914, when doubtless the plot to assassinate Ferdinand took active form, with all its consequences to Serbia as the touchstone of the war. The Sun passed this point when Austria

served her arrogant ultimatum on Serbia, and Neptune arrived there during the war

Similar drawings of the Lunar eclipses should be made, the foregoing being but a partial picture of the total currents. As Neptune's period is 165 years, there was just one chance in approximately a quarter of a million that it could "happen" to be exactly at points 8, 9, 10 and 11 at the times of the two Lunar eclipses of the year, the ingress new Moon, and the only opposition of Mars (war) and stationary Jupiter (a stagnant civilization) during the vear.

As Mars excited the upper meridians (C, Fig. 1) the governments, not the people, were the agents of war. As Neptune touched off the nadirs (X, Fig. 1), the low faith and ideals (Neptune), the destructive aims of national expansion (Neptune) and the breakdown of mutual interdependence (Neptune), are plainly seen to have been "at the bottom" (nadir) of the situation.

As the immediate inducement to the war was the assassination of Ferdinand at Sarajevo, and the pressure demands were made upon Serbia, and as it is shown in The Earth in the Heavens that this eclipse centered on the precessional Ascend, ants of Sarajevo and Belgrade (as also Vienna and Berlin), we must expect the eclipse to have been zodiacal (inducements, demands) conjunction with stars in the latitude of Sarajevo and Belgrade. Turning to the Boss catalogue we find that in 1914 star No. 2900 (ω Ursae Major, mag. 5) circled in latitude tude 43°39'N, over Sarajevo in geocentric latitude 43°42'N, and that its zodiacal longitude was 25°19'Leo, near the place of the eclipse. Further, star No. 2958 (Ursae Major, mag. 3) circled in latitude 44°58'N, nearly over Belgrade, and was in zodiacal longitude 27°35'Leo, precisely conjunction with the eclipse. The student will find it an excellent exercise to search the star catalogue for stars latitudinally coupling the eclipse with the other capitals, including Washington.

¹ Long one of the points of astrological reference.

² See Table I, The Earth in the Heavens.

There remains one apparent horn to the enigma and upon this it may reasonably enough be thought the author has inextricably impaled himself. Despite what was said in Chapter I, even experienced astrologers may still ask: How could an eclipse occurring on August 21, 1914, either foreshadow or generate the current of events leading to a war that began some three weeks **before** the eclipse?

The answer is as simple as what has gone before, but a full explanation would call for a large volume such as would fully define astrology in relation to Ouspensky's Tertium Organum and Einstein's extension of relativity into what he terms his theory of "wave mechanics" 1.

Briefly, however, let us glimpse what we can possibly mean by "before". It should be clear that the separative concepts "then", "now", and "henceforth", arise from the very nature of our consciousness-from our slow timesense, and from the wholly relative nature of time itself and of the "facts" which depend upon it. For instance: Electrical theory, in the light of the better understanding which its radio applications have brought about, shows conclusively that the electrical characteristics of conductors and dielectrics depend upon the current frequency and not upon any absolute characteristic of their own. A table of conductors and insulators compiled in progressive series for low frequency currents means nothing save to point a. contrast when we even distantly approach the frequency of light. For there the order not only breaks down but is completely reversed. Thus a 60-cycle current is transmitted by the metals, while glass, air and vacuum are almost perfect dielectrics At light frequencies, such as concern astrology with reference to eclipses, the reverse is true-the metals fail to transmit and glass, air and vacuum become first-class conductors

¹ See also Steinmetz's Relativity and Space; also Tolman's The Theory of Relativity of Motion.

This illustrates the purely **relative** nature of many facts. It shows how a change in the time factor alters the aspect of the world as our consciousness perceives it. In high-frequency phenomena, such as light waves, the time constant is so foreshortened that our senses cannot apprehend its true nature, which is wholly different from what our slow timesense imagines it 1.

If you swing a pendulum of a vard length you are definitely conscious of its oscillatory swings. You may even conceive of yourself as some small though averagely intellectual creature clinging to its weight and unshakably selfconvinced during a slow half cycle 2 that you are progressing "forever" in one direction, with, in the timesense, a very definite past, present and future. And you would insist, as you are apt to insist, that the cause must "precede" the event.

But if someone were to shorten the pendulum to a fraction of a millimeter, or to the length of a light wave, its period of oscillation would automatically so foreshorten to an infinitesimal period that your separate timesense of a yesterday, today and tomorrow would utterly disappear, and instead, if you were to retain consciousness at all, as we know it, you would sense only an infinitely high vibration in an eternal now-like a patient about to succumb to an anesthetic, or just as the human ear fails to detect as sound any vibration above twenty thousand per second.

Since in the investigation of cosmic motivation and its astrological logical measurements as applied to eclipses, we are dealing with light frequencies, there is no such thing as a "before" and "after" in the slow timesense of our calendar or our senses. At light frequencies the direct and converse arcs are **simultaneous,** or practically so, even though the arc to our slow timesense

¹ "On a body moving with the velocity of light length vanishes, becomes zero and the time stops"-Steinmetz's Relativity and Space, page 41.

² A "lifetime" to such a being.

registers as a month or year. In other words the arcs of oscillation are covered at the speed of light. What our consciousness with its slow timesense detects is not the actually simultaneous events in a continuum pulsing at light frequencies in an eternal now, but the illusion of a sequence of events "in time"; and this arises solely from the fact that our consciousness is the sum and function of the relatively low frequencies of the planets-a mere octave range of the low harmonics of light frequencies, though higher than the present radio bands.

We can measure the time of human apprehension by the planets as they move to configure the eclipse or to "commutate its rectified or filtered light-frequency currents after the manner of Fig. 7. The Sun and stars' electromagnetic waves must be viewed as oscillatory at light frequencies with no measurable "before" or "after". These "detected" by the planets create the sequence of relatively low pulsating direct currents at the various planets' frequencies to which the sensibilities of various organisms respond. So apprehended it is contrary to the nature of consciousness to ascribe an event to a "later" cause. The "later", however, is one of those illusions under which we live; "before" is another illusion.

And so Morecroft has stated: "There is a magnetic field caused by a moving electric field, although there is no resultant electric field there." The fact is, however, that **if the nature of consciousness were not what it is** we would see that there is a resultant electric field there. And upon this fact rests the conservation and transformation of energy as between the visible and invisible worlds. We recognize this only imperfectly as yet in dealing with relatively low-frequency oscillatory currents, and are apt to forget it altogether when considering the rectified currents upon whose sequence consciousness depends for its progressive detection of life and events.

There is thus indeed no more justification for viewing an event as before or after an eclipse, as a source of cause or in-

than there is reason to turn a galena crystal upside down because a mischievous child reverses the antenna connections. Each half of the wave-cycle carries the program in duplicate.

Further, we do not even need to assume the eclipse **causes** events, as **for simplicity** we have assumed. For that which is forever existent needs no cause. All that was, is, and will be, is coexistent in the continuum, and all that an eclipse can do is change the amplitude of the received light wave and so change the signal level with respect to our sensibilities through which we apprehend events.

In last analysis, however, it may prove that all events are not only simultaneous (within the limit of the term imposed by the finite velocity of light) with respect to the continuum, but that their description and time sequence depend solely upon what may be termed the "consciousness rate" or "natural frequency" of the observer, and upon his particular planes of measurement ¹. For though we may, for practical purposes, speak of events being induced by electromagnetic induction due to the intersective planes of motion of material bodies in what is now termed the "energy field," we should be mindful that one of Einstein's fundamental deductions from the relativity theory is that the presence and magnitude of a gravitational field-and hence of an electromagnetic field, according to his recent identification of gravitation and magnetism as one law-is entirely dependent on the particular choice of coordinates ordinates by the observer. The description of an electromagnetic field is determined by the co-ordinates with reference to which we measure it. It is his idea that any observer finds a gravitational or magnetic field at any point in space only because the observer is using a set of co-ordinates-a system of reference, a point of view, and, let it here be added, a conscious-

¹ "Viewed by the theory of relativity time and space have ceased to be entities and have become mere forms of conception"-Steinmetz's Relativity and Space, page 12.

119

ness rate--which does not have the natural acceleration due to gravity at the point in question.

When the theory of relativity states that when the velocity of a body increases its length shortens in the axis of its motion, time is slowed up in that plane, and its mass is increased, there is reason to believe that all that is being said, or should be said, is that the four-fold continuum appears **altered** as relative velocities are increased or decreased with respect to the limiting velocity of light.

Consciousness undergoes change in the continuum; that is to say, the particular events, and the sequences of events, which are "real" to an observer depend not only on the energy transformations in the four-dimensional timespace manifold, but on the particular plane of, and rate of, rotation of his timesense with respect to his chosen Cartesian co-ordinates. Consequently, men agree as to the presence, magnitude or absence of a gravitational or magnetic field, and as to the general nature and sequence of events, solely because their earthbound Cartesian co-ordinates are for all of them the same, and because their timesense is in general the same, since it is determined by earth velocities. But neither the dreamer nor the psychic is limited to these co-ordinates, nor to this common timesense. What he sees or otherwise experiences may be not only just as "real", but it may relate to a before or an after when referred to the common concept of the now. And because within certain limits the world appears different to different orders of intelligence, and wholly different to the sane and insane, nothing is a fact or a proof of fact until the individual's appointed time to see it.

In other words, what we view as the objective facts of life are probably, as Kant and others have claimed, simply those apprehensions of the continuum which are simultaneously common experience to the vast majority. Let the man's apprehension

fall below this average, he is a dunce; above, he is crazy. But these designations are relative to the times. They have no absolute values.

And so Life is as you see it. You see it, however, according to your lights. These lights are the Sun and stars and their planet or "plan it" reflectors.

Age upon age they circle on their way,

The Seven Orbs that priest and church disdain,
That wise astronomers gaze on in vain,
Ever unmindful of the truth they slay;
Nor have they thought that in each earthward ray
Lurks mortal fate-man's loss and futile gain;
Time's healing moments and his months of pain,
Which Destiny has written in The Play.

These beacons through Life's night deserve more fame
Than magnified dimensions through a glass,
Than prattle of far distances or mass,
That solemn scientists may make a name.
They plan it. Know ye have not failed, who tried.
By Soul's soul light go learn--be satisfied.

THE END